A STUDY TO ASSESS THE EFFECTIVENESS OF LAMAZE TECHNIQUE OF CHILD BIRTH PREPARATION ON MATERNAL OUTCOME OF PRIMIGRAVID ANTENATAL WOMEN IN A SELECTED MATERNITY HOSPITAL OF J&K

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ABSTRACT:

Introduction: With onset of pregnancy, there is a natural onset of apprehension among pregnant women especially Primigravida. With no experience and pre education regarding the delivery process they may land up in problem due to Anxiety and Fear that in turn may lead to Hypoxia only to aggregate the pain and prolonged labour during labour process. Uncontrollable pain with least or no coping strategy may hinder smooth labour process resulting in adverse Maternal Outcome.

Methodology: Quasi-Experimental study, Mixed method approach was adopted and the research design selected for the present study was Control Group Post-Test-Only Design (One Group Post-Test Only Design). Purposive sampling technique was used to obtain an adequate size of sample. 100 Primigravida Antenatal women were selected for the study.

Results: In Experimental group the mean $\pm$ sd score of Maternal Outcome was found to be 25.04 $\pm$ 4.10 while in control group it was found to be 16.64 $\pm$ 2.41 respectively. Paired t test show the p value as 0.001 and it was found to be statistically significant at 0.05 level of significance.

Conclusion: In this study the mean scores of Experimental group were significantly higher than the mean scores of Control group and p value is significant at 0.05 level of significance. This indicates that Lamaze technique of childbirth preparation is effective in improving Primigravida Antenatal women's Maternal Outcome which includes Use of pain relieving and labour inducing drugs, Duration of labour, Nature of delivery and Maternal Complications.

Keywords: Effectiveness, Maternal Outcome, Lamaze technique, Self-care capability process.

Introduction: Pregnancy is challenging for Antenatal women, as it brings stress and fear regarding birth process. Not only the pregnant women but their families are

equally concerned about stress free safe delivery with good Maternal and fetal outcome. . Education for family members should begin before pregnancy and continue through postpartum period. During period, the expectant mother needs to help herself by indulging in self care and improve herself care capabilities in order to combat self care deficit that may be there for various reasons, in order to enjoy healthy Antenatal, perinatal and postnatal period as well as contribute to fetal wellbeing. Most of the deaths of women of the reproductive age in many developing countries are the result of complications of pregnancy on child birth. In addition to the number of deaths each year, over 50 million women suffer from maternal morbidity and acute complications from pregnancy. . Pain during labour and delivery is caused by:

- 1. Hypoxia caused by circulatory stasis in the myometrium and adjacent tissues during and immediately after strong uterine contractions may cause a local oxygen deficit.
- 2. Pressure by the presenting part on the bladder ,bowel, or other sensitive pelvic structures,

- 3.Traction on the peritoneum and uterocervical supports during contractions or expulsive efforts,
- 4.Emotional tensions caused by anxiety and fear

According to Jenson and Bobak (1997) causes of pain are due to traction on the peritoneum, pressure, tension and hypoxia in the myometrium and adjacent tissues.

Due to apprehension they are not able to relax and breathe properly in-between the contraction of uterus. . They scream and become exhausted much earlier using their power of pushing the fetus before time, leading to prolonged and complicated labour. To avoid such tension and exhaustion, a mother should be taught relaxation and breathing exercises (Lamaze technique) during ante-natal period which will help her to cope up with the stress during labour.

SMRITIKANA MANI (2000) in her study has reported that teaching the mothers breathing and relaxation technique right from antenatal period has been significantly effective in reducing their undesirable behaviour during the labour, instrumental delivery, maternal complications and use of

pain relieving drugs during delivery
Thassari et al (2000)¹²

Conducted a study and hypothesized that health education could help prevent complications. He identified participatory action research as theoretical framework and used purposive sampling. The numbers of subjects were 214. The study used qualitative methodology. The Lamaze education classes were referred to as a health education program. The study cited hospital-based programs as the setting for classes. The findings revealed that there was a significant change in behaviours related to preparation for labor and birth, breastfeeding, and postpartum period.

Wikipedia(August 2009) The Lamaze technique, often referred to as Lamaze, is a prepared child birth technique developed in the 1940s by French obstetrician Dr Fernand Lamaze as an alternative to the use of medical intervention during childbirth. The goal of Lamaze is to increase a mother's confidence in her ability to give birth, classes help them understand how to cope with pain in ways that both facilitate labour and promote comfort, including focused breathing , movement and massage.

OBJECTIVES:

1. To assess the effectiveness of Lamaze technique of childbirth preparation on maternal outcome of Antenatal Primigravid women.
2. To determine the correlation between the self care capability process and Maternal Outcome.

HYPOTHESIS:

H1: There will be a significant difference in Maternal outcome of Primigravid antenatal women's from experimental group and that of Primigravid antenatal women from control group at 0.05 level of significance after exposure to Lamaze technique.

H2: There will be a significant correlation between Maternal Outcome and Self care capability process

METHODOLOGY:

Research Approach: To accomplish the objectives of the study, Convergent triangulation design of **mixed method approach** was adopted. **The research design** selected for the present study was Control Group Post-Test-Only Design (One Group Post-Test Only Design). **Setting:** The present study was carried out partially in the side room of Obg and Gyne OPD and

partially in the labour room of selected Maternity Hospital. **Sample size:** Keeping in view the nature of problem and the objectives of the study and its research design, a sample of 100 primigravid antenatal women was selected by purposive sampling 50 for each group i.e. Experimental and Control group respectively.

Instrumentation: Based on the objectives and conceptual framework of the study, the following instruments were developed in order to generate the data

1. Physical assessment chart.
2. Structured interview schedule consisting of two parts , I and II:
 - Part I on demographic data and
 - Part II on clinical features of true labour pain, and practice of breathing exercises.
3. Semi-structured interview schedule to assess the perception and acceptability of Lamaze technique.
4. Observation checklist consisting of areas regarding maternal outcome (Use of pain relieving and labour inducing drugs, Duration of labour, Nature of delivery and Maternal Complications)
5. Self care capability checklist.

6. Instructional module on self-care capability process (Modification of Diet, Adequate sleep, Maintenance of personal Hygiene, Regular Antenatal checkup, Maintenance of weight and regular monitoring)

7. Instructional module on Lamaze technique of child birth preparation.

RESULTS: In this study out of all participants of experimental group (practicing Lamaze technique) 48% of the women were in the age group of 23-26 years while 52% were in the age group of 27-30 years whereas in case of control group 64% were in the age group of 23-26 years while 36% were in the age range of 27 -30 years. In case as well as in control group majority of the women were Muslims. Only a fewer samples (2%) in experimental group were following Hindu religion. . As far as educational qualification of samples is concerned in case group majority of the respondents (74%) were educated up to Graduation or above, followed by secondary education (22%) and Primary education (4%). Likewise in control group also similar trend was observed as more than half of the respondents (58%) were educated upto graduation and above, followed by

secondary (40%) and primary (2%) level of education. In case group (78%) as well as in control group (70%) maximum number of the respondents were working while only a small proportion of respondents were housewives in case of both case and control group. Probing into the medical history of respondents nothing significant was observed in case group and control group. On the other hand in surgical history among 2% in experimental group some significant history was reported otherwise nothing significant was reported by the women in both the groups. Further the data about menstrual history reveals that in experimental group 84% of the women reported regular menstrual cycle while only 16% reported irregular menstrual cycle. Similarly, in control group also 92% reported regular menstrual cycle while 8% reported irregular menstrual cycle. The data regarding period of gestation depicts that in experimental group all the women reported < 36 weeks of Gestation period while on the other hand in control group also all the women reported gestation period of more than < 36 weeks. Statistically, significant difference was observed among case and control group in case of period of gestation

only. No statistically significant difference was observed in both the groups in terms of their age, religion, education, occupation, medical, surgical and menstrual history.

Paired t test was applied for data analysis.

Table 1
n=100

Comparison of different domains of Maternal Outcome					
Variables(Response to Labour Process)	Variable Categories	Control Group	Experimental Group	Chi ²	p-value
Use of Drug	Undesirable or not desired at all	45 (90.0)	7 (14.0)	65.76	0.001 (S)
	Less desirable	5 (10.0)	5 (10.0)		
	Most Desirable	0 (0.0)	38 (76.0)		
Nature of Delivery	Undesirable or not desired at all	45 (90.0)	7 (14.0)	65.76	0.001(S)
	Less desirable	5 (10.0)	5 (10.0)		
	Most Desirable	0 (0.0)	38 (76.0)		
Duration of Labour	Undesirable or not desired at all	40 (80.0)	7 (14.0)	48.49	0.001 (S)
	Less desirable	5 (10.0)	5 (10.0)		
	Most Desirable	5 (10.0)	38 (76.0)		
Maternal Complications	Undesirable or not desired at all	5 (10.0)	0 (0.0)	6.06	0.04 (S)
	Less desirable	5 (10.0)	3 (6.0)		
	Most Desirable	40 (80.0)	47 (94.0)

Table 2
n=100

Variable	Experimental (Mean±sd)	Control (Mean ±sd)	Diff. (95%CI)	p-value
Maternal Outcome Score	25.04±4.10	16.64±2.41	8.4(7.06-9.7)	0.001(S)

Data presented in Table 1 and Table 2 Inference shows that In Experimental group the mean±sd score of Maternal Outcome was found to be 25.04± 4.10 while in control group it was found to be 16.64±2.41 respectively. Paired t test show the p value as 0.001 and it was found to be statistically significant at 0.05 level of significance. Finding shows that practicing Lamaze technique is effective in improving Primigravid Antenatal women's Maternal Outcome and accepts the Hypothesis H1.

H₁: There will be a significant difference in Maternal outcome of Primigravid antenatal women's from experimental group and that of Primigravid antenatal women from control group at 0.05 level of significance after exposure to Lamaze technique.

Correlation between Maternal Outcome and Self care capability process was computed by using Pearson's

coefficient of correlation and represented by scatter diagram.

Table 3
n=100

Variable	Experimental r(P)	Control r(P)
Maternal Outcome	0.33(0.112)	0.04(0.78)

There is a significant correlation between Maternal Outcome and selfcare capability process

Inference: Table 3 shows there is no significant correlation between Maternal Outcome and self care capability process

Hence H₂ is rejected whereas null hypothesis H₀₂ is accepted.

H₀₂: There will be no significant correlation between Maternal Outcome and Self care capability process.

Validity and Reliability: The structured interview schedules, observation checklists and Instructional modules were duly validated and reliability testing was done successfully.

RECOMMENDATIONS:

1. All Antenatal women attending outpatient department should be taught Lamaze technique irrespective of their Gravida.
2. All Nurses working in Maternity Hospitals should be taught Lamaze technique through Planned teaching programme so that they find it easy to teach the same to their patients.
- 3 A similar teaching programme should be implemented for obstetricians and other health personnel dealing with pregnant women.
4. This programme should be implemented in Community setting e.g. PHCs and CHCs so that the women from far flung areas attending these centers take the benefit of this programme .

CONCLUSION:

During Antenatal period, the expectant mother needs to help herself by

participating actively in self care and improve herself care capabilities in order to combat self care deficit that may be there for various reasons, in order to enjoy healthy Antenatal, perinatal and postnatal period as well as contribute to fetal wellbeing. The Self-care capability programme including Lamaze technique was effective for the experimental group in having a good maternal outcome after comparing the scores of experimental group with those of Control group.

The findings concluded that the instruction modules developed and the Live demonstration by the researcher was found to be effective in improving the coping capabilities to eventually have a good Maternal Outcome among Antenatal primigravid women.

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