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Effectiveness of structured teaching programme on knowledge regarding lamaze technique among antenatal mothers in selected maternity hospitals Bangalore

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Abstract

Objectives of the study

- 1) To assess the existing knowledge regarding Lamaze technique among antenatal mothers in selected maternity hospitals at Bangalore.
- 2) To evaluate the effectiveness of structured teaching program on knowledge regarding Lamaze technique among antenatal mothers in selected maternity hospitals at Bangalore.
- 3) To find an association between post-test knowledge scores regarding Lamaze technique and selected socio-demographic variables among antenatal mothers in selected hospitals at Bangalore.

Method: Evaluative approach is adopted for this study as its aim is to test the hypothesis that establishes a relationship between Lamaze technique and reduction in labour pain. A pilot study was conducted with six samples in the selected hospital to refine the methodology and to find the feasibility of the study. The setting of the study is selected tertiary care hospital, Bangalore. The main study samples were about 60 in number. Non probability convenient sampling technique was used to select the samples. Research design adopted for this study was pre-experimental, one group pre-test post-test design. Lamaze technique which includes Lamaze breathing techniques, partner massage, imagery and visualization, pushing techniques, focal point imagery, movements and relaxation techniques was given to the antenatal mothers. An opinionative on Lamaze technique was administered after the delivery process among antenatal mothers.

Result: The overall mean percentage knowledge score in the pre-test and post-test were 27.5% and 87.60%, respectively. Enhancements in mean percentage score were found to be 60.1%. The statistical paired 't' test indicates that enhancement in the mean percentage knowledge score was found to be significant at 0.05 level for all the aspects under study. The association found to be partly significant between post-test knowledge scores and selected socio-demographic variables at 0.05 level ($p < 0.05$).

Interpretation and Conclusion: The data was analyzed by applying Descriptive and Inferential statistics. The study findings suggested that structured teaching programme is an effective instructional method in improving the knowledge regarding Lamaze technique among antenatal mothers.

Hypotheses

H₁: The mean post-test-knowledge score among antenatal mothers regarding importance of Lamaze technique will be significantly higher than their pre-test knowledge score.

H₂: There will be significant association between post-test knowledge score and selected socio-demographic variables among antenatal mothers regarding importance of Lamaze technique.

Keywords: Lamaze technique, feasibility, pushing techniques, focal point imagery

Introduction

The power and intensity of your contractions cannot be stronger than you because it is you. Birthing is an experiential journey. Each birth is like a rebirth for the mother. Natural childbirth is a sublime experience, with many safe options and benefits women dream of a perfect birth. The physiological transition from pregnancy to motherhood heralds an enormous change in each woman physically and physiologically. Labour is one of the major events in a woman's life. It is accompanied by pain. Labour pain is nature's own way of alerting the pregnant mother about impending childbirth. Pregnant women commonly worry about the pain, they will experience during labour and childbirth and how they will react and deal with that pain.

Bringing a baby into this world is one of the most natural and instinctive acts that a woman's body is programmed to do. Though childbirth is the most fantastic adventure a mother can have, with all pressure of the modern world, it's a challenge for women to develop confidence, trust their intuition and allow their maternal instincts to take over. The foundation for the whole woman kind is the art mothering. Motherhood is the greatest gift of nature to mankind. Life is mother's gift to everyone and during the process of giving birth she has to undergo labour pain. Labour, purely in the physical sense, may be described as the process in which the fetus, placenta and the membrane are expelled through the birth canal. Normal labour occurs between 37-42 weeks of gestation. Accompanying the physical changes the women may have feelings of great intensity varying from excited anticipation to fearful expectancy.

A good childbirth experience makes woman to have adequate information prior to the labour to ensure comprehension of the changes the labour will bring and to have some control over the birth of her baby. Woman in labour should be encouraged to trust her own instincts, listen to her own body, verbalize feelings in order to get the help and support they need. Increase in confidence has associated with lower level of pain experience during labour. Improved knowledge about how they can cope and work during labour will help the woman to have a positive childbirth experience.

Analgesics may be given during labour as needed, but as little as possible should be given because they cross the placenta and may depress the neonates breathing, neonatal toxicity can occur because after the umbilical cord is cut, the neonate, whose metabolic and excretory process are immature, clears the transferred drug much more slowly, by liver metabolism or by urinary excretion. Preparation and education about child birth lessen anxiety, pain perception, and thus markedly decreasing the need for analgesics.

Lamaze method is also termed as psycho prophylactic method that means preventing labour pain (prophylaxis) by the use of mind (psyche). Popularized in the 1950s by French obstetrician Dr. Fernand Lamaze based on his observation in the Soviet Union, as an alternative to medical intervention during childbirth. Lamaze has become a popular source of information about pregnancy, birth, and parenting through Lamaze international.

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Reviews of literature

The literature review involves the systematic identification, location, scrutiny & summary of written materials that contain information of a research problem.

(Polit & Hungler 1998) ^[11] According to a recent survey on maternal and perinatal health by the Union Ministry of

Health and Family welfare under the Health Management Information System (HMIS), nearly one in five women in India are going under knives or giving birth by caesarean section, as compared to vaginal births. Over 14 percent of the total births in 2018-19 took place through a C-section around 19 lakh births out of the total 1.3 crore in public hospitals births. Reviewed from nine countries in Asia, including India, China, Japan, Nepal and Sri Lanka, during 2007-2008, and found that 27 per cent births were delivered by caesarean section. The health experts feel that such boom is unnecessary and caesarean section can harm mothers' health. Various studies show that babies born by Caesarean section are more susceptible to respiratory problems. The study result found that the caesarean sections underwent by mothers is not medically necessary and women are willing to do so due to fear of labour process.

Over 90% of women experience severe/unbearable labour pain, although recollection fades with time. The pain in labour is very real and not imagined and needs proper management. Labour pain may have adverse physiological and psychological consequences: 1. Respiratory: causes hyperventilation, leading to hypocapnia and respiratory acidosis. 2. Cardiovascular: increases cardiac output and blood pressure via sympathetic activity; this may be problematic in cardiac disease and pre-eclampsia. Increased venous return associated with uterine contractions may also contribute. 3. Neuroendocrine: increases maternal catecholamine secretion with risk of utero placental constriction. 4. Gastrointestinal: effect of labour on gastric emptying and acidity is unclear, although delayed emptying and increased acid secretion have been suggested. Opioids are well known to induce gastric stasis. 5. Psychological: severe labour pain has been implicated in contributing to long-term emotional stress, with potential adverse consequences on maternal mental health and family relationships.

A research study was conducted in U.S. (1989) investigated the intensity of pain experienced and the women's thoughts by interview method. Mothers' distress level was noted in three phases of labour. A positive correlation was found between the two parameters pain and distress-related thoughts- in the latent phase of the first stage of labour and the subsequent duration of labour. Thus the implications for childbirth educators and the labour team are important. Childbirth educators have an undoubted responsibility to prepare women realistically and positively for the possibilities that may confront them at the time of birth.

Research methodology

Introduction

According to Sharma (1990) ^[12], research methodology involves the systemic procedure by which the researcher starts from initial identification of the problems to its final conclusions.

Research methodology aims at helping the researcher to answer the research questions effectively, accurately and economically, and how research is done scientifically.

Methodology refers to a rationale and philosophical assumption that underlie a particular study relative to the scientific method. Methodology includes collections of theories, concepts or ideas as they relate to a particular discipline or field of inquiry. This chapter deals with the methodology formulated for the problem selected and is

discussed under following headings.

Research approach

The research approach refers to a general set of orderly disciplined procedures used to assure useful information's. Research approach helps the researcher to determine what data to be collected and how to analyze them. It also suggests possible conclusion to be drawn from the data. An evaluative approach is adopted for this study. It involves testing the hypothesis that establishes a relationship between Lamaze techniques and reduction of pain.

Research design

The selection of design depends upon the purpose of study, the research approach and variables to be studied. The research design is the overall plan for obtaining answers to the research questions being studied and for handling some of the difficulties encountered during the research process. While designing a study, researcher specifies which specific design will be adopted and what will be done to minimize bias and enhance the interpretability of results. Research design selected for the present study is a pre-test-post-test control group design.

Group	Pre-test	Interventions	Post-test
Antenatal mothers who are in third and second trimester and met the criteria of inclusive sampling at vanivilas maternity hospital, Bengaluru.	Assessment of existing knowledge	Structured teaching programme	Assessment of gained knowledge
S	O ₁	X	O ₂

The symbols used are described as

S: Single group of antenatal mothers who receives the interventions.

O₁: Pre-test knowledge of antenatal mothers regarding Lamaze technique in selected maternity hospitals, Bengaluru.

X: Structured teaching programme regarding Lamaze

technique.

O₂: Post-test knowledge of antenatal mothers regarding Lamaze technique in selected maternity hospitals, Bengaluru.

Association between Pre-Test Knowledge with Selected Demographic Variables

Table 1: Association between socio-demographic variables and pre-test knowledge level of respondents on Lamaze technique N=60

Variables	Overall knowledge level				Chi square
	Below Median		Median and above		
Variables	N	%	N	%	Chi square
1. Age in years					
Below 25yrs	12	48	13	52	
26-30yrs	16	55.18	13	44.82	0.28*
31-35yrs	03	50	03	50	DF, DF=2
Above 36yrs	00	00	00	00	
2. Education					
Primary education	7	41.18	10	58.82	
Secondary education	15	55.56	12	44.44	0.86*
PUC & Graduate	08	50	08	50	DF=3
No formal education	00	00	00	00	
3. Occupation					
House wife	17	53.13	15	46.87	
Daily wages worker	7	41.18	10	58.82	0.85*
Agriculture	03	60	02	40	DF=3
Private employee	03	50	03	50	
Govt. employee	00	00	00	00	
4. Educational status					
Hindu	9	52.95	08	47.05	
Muslim	17	47.22	19	52.78	0.31, 0.31*
Cristian	04	57.15	03	42.85	DF=2
Any other specify	00	00	00	00	
5. Monthly income (in rupees)					
15000-20000/-	21	60	14	40	
20001-30000/-	06	33.33	12	66.67	3.54*
30001-40000/-	03	42.86	04	57.14	DF=2
Above 40000/-	00	00	00	00	
6. Type of family					
Nuclear family	11	78.58	03	21.42	4.68*
Joint family	20	45.46	24	54.54	DF=2
Extended family	01	50	01	50	
7. Duration of married life					
Below 2yrs	08	47.06	09	52.94	
3-4yrs	16	47.06	18	52.94	1.17*
4-5yrs	02	66.67	01	33.33	DF=3
Above 5yrs	04	66.67	02	33.33	
8. Gravida					

Primigravida	16	47.06	18	52.94	0.27*
Multigravida	14	53.85	12	46.15	
DF=1					
9. Previous source of knowledge on Lamaze technique					
Yes	03	60	02	40	0.21*
No	27	49.10	28	50.90	DF=1

*is significant; ^{NS} is not significant

The above table shows that the demographic variables like Age, Education, Occupation, Religion, and Monthly income, Type of family, Duration of marriage, Gravida and previous exposure of information regarding Lamaze technique were found to be not significant association with Post-test knowledge scores. Hence, the hypothesis stated there will be not significant association between Post-test knowledge level regarding Lamaze technique and their selected demographic variables is partly rejected at 0.05 level.

To compare the significant differences between Pre-test & post-test knowledge score of antenatal mothers regarding lamaze technique

Table 2: Classification of Respondents on Pre-test and Post-test knowledge scores on Lamaze techniques

Level of Knowledge	Pre test		Post test	
	Frequency	%	Frequency	%
Inadequate (<50%)	57	95	00	00
Moderate (50--75%)	3	5	13	21.67
Adequate (>75%)	00	00	47	78.33
Total	60	100	60	100

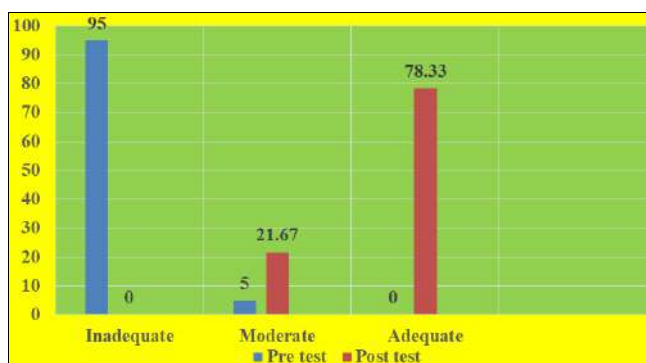


Fig 1: Distribution of difference between pretest & post test score

Discussion

H₁: There will be a significant increase in the mean post-test knowledge score regarding Lamaze technique among antenatal mothers. In this study the overall pre-test mean knowledge scores was 27.5% and post- test score was 87.60% with 60.1% mean knowledge enhancement. The hypothesis H₁ Stated in the study is accepted since there was significant change found between pre- test and post-test knowledge scores regarding Lamaze technique among antenatal mothers at 0.05 level ($p < 0.05$) Hence, there was a significant improvement in knowledge scores of antenatal mothers after providing structured teaching programme regarding Lamaze technique.

H₂: There will be a significant association between post-test knowledge score regarding Lamaze technique with selected socio-demographic variables.

The second hypothesis is not accepted for no significant association found between post-test knowledge scores and

the socio demographic variables such as Age (0.28^{NS}), Education (0.21^{NS}), Occupation (0.85^{NS}), Religion (0.31^{NS}), and Monthly income (3.54^{NS}), Type of family (4.68^{NS}), Duration of marriage (1.17^{NS}), Gravida (0.27^{NS}) and previous knowledge regarding Lamaze technique (0.21^{NS}) were found to be non-significant, associated with the post-test knowledge scores and socio-demographic variables at 0.05 level and the researcher also partly rejected the hypothesis 2, hence there is no significant association found between post-test knowledge scores and socio-demographic variables.

Conclusion

On the basis of the findings of the study “To assess the effectiveness of structured teaching programme on knowledge of antenatal mothers regarding Lamaze technique in selected maternity hospitals at Bangalore” This chapter presents the conclusions drawn, implications, limitation and recommendations. The main aim of the study was to assess the existing knowledge regarding Lamaze technique among antenatal mothers and to conduct structured teaching programme regarding Lamaze technique.

Recommendations

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

1. A replication of present study can be conducted with a larger population.
2. A similar study can be conducted in different settings with a control group.
3. The same study can be conducted on other domains such as attitude and practice.
4. A follow up study can be done to assess the effect of structured teaching on their compliance.
5. A comparative study can be conducted between Lamaze technique and standard antenatal care.
6. An exploratory study to identify the coping strategies of patients with fear of labour pain can be undertaken.

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Conflict of Interest

Not available

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