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## ASSESSMENT OF THE EFFECTIVENESS OF INFORMATION BOOKLET ON KNOWLEDGE REGARDING MODIFIED LAMAZE METHOD AMONG MIDWIVES IN SELECTED HOSPITAL INDORE

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**Abstract:**

The Lamaze method is employed during pregnancy and childbirth to teach women to respond positively to the pain of labor. Mothers and their partners are taught focused breathing techniques, movement and positioning, massage, and relaxation throughout labor. The process is intended to contribute to the process of labor without the use of drugs. While this method is widely practiced, this method is not necessarily the right one for everyone. Lamaze is important in making an educated and appropriate decision in the child bearing process.

**STATEMENT OF THE PROBLEM**

"A study to assess the effectiveness of information booklet on knowledge regarding modified Lamaze method among midwives in selected hospital Indore."

**OBJECTIVE**

1. To assess the pre-test knowledge regarding modified Lamaze method.
2. To assess the post test knowledge regarding modified Lamaze method.
3. To assess the effectiveness of information booklet on knowledge regarding modified Lamaze method.
4. To find out the association between knowledge and selected demographic variable.

**Hypothesis**

**RH1:-** The mean post test knowledge scores of the midwives regarding modified Lamaze method significantly higher than mean per test knowledge.

**RH2:-** There will be significant association between pre and post knowledge score with the selected demographic variable.

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**INTRODUCTION**

In 1951, Dr. Fernand Lamaze introduced a method of childbirth in France by incorporating techniques he observed in Russia. This method, consisting of childbirth education classes, relaxation, breathing techniques and continuous emotional support from the father and a specially trained nurse, became known as "the Lamaze method."

Word of mouth spread in the United States during the late 1950s, after Marjorie Karmel gave birth assisted by Dr. Lamaze and she wrote of her childbirth experience in Thank You, Dr. Lamaze. The book inspired many women to approach childbirth as a shared event for both mother and father. Elisabeth Bing and Marjorie Karmel met in 1958 and began to work together to teach the Lamaze method to as many women as possible. In 1960, they formed ASPO/Lamaze (now Lamaze International), a not-for-profit organization composed of parents, childbirth educators, health care providers and other health professionals, to spread the word about Lamaze and to set the standards for Lamaze childbirth educators.

Conceptualization is the process of forming ideas, designs and plans. A conceptual Framework deals with the concepts assembled together by virtue of relevance to research problem, which provides a certain framework of reference for clinical practice research and education.

Theory is the basis of all scientific work. A theory consists of an integrated set of defined concepts, existence of statements, and relational statements that present a view of a phenomenon and can be used to describe, explain, predict and control that phenomenon.

The conceptual frame work of the present study is based on Pender's Health Promotion Model Nola Pender Published the Health Promotion Model (HPM) in 1982. She reported that model was constructed from expectancy-value theory and social cognitive theory using a nursing perspective. The model was slightly modified in the late 1980s, again in 1996 (Pender, 1996; Pender, Murdaugh, and Parsons, 2002).

The Health Promotion Model was proposed as a Frame work for integrating nursing and behavioural science perspectives on factors that influence health behaviours. The model is to be used as a guide to explore the biopsychosocial processes that motivates individuals to engage in behaviours directed towards health enhancement. (Pender 1996). The model has been used extensively as a frame work for research aimed at predicting lifestyles as well as specific behaviours.

The major concepts of Health Promotion Model are individual characteristics and experiences (prior related behaviour and personal factors) behaviour – specific cognitions and affect (perceived benefits of action, perceived barriers to action, perceived self efficacy, activity related affect, interpersonal influences, and situational influences) and behavioural outcomes (commitment to a plan of action, immediate competing demands and preferences, and health promoting behaviour).

**Prior related behaviour:**

Prior related behaviour includes previous experience, knowledge and skill in health promoting actions. Individuals who made a habit of a previous health promoting behaviour and received a positive benefit as a result will engage in future health-promoting behaviours.

In this study it refers to midwives are having some knowledge on modified Lamaze method.

**Personal factors:**

Personal factors are categorized as biological (eg. Age, strength, balance) psychological (eg. Self esteem, self motivation) and socio cultural (e.g., race, ethnicity, education, socio economic status). Some personal factors can influence health behaviours while others, such as age, cannot be changed.

In the present study biological factors include midwifes aged 20- more than 35 years. Psychological factors include midwives' attitude towards modified Lamaze method for effective antenatal, intranatal and postnatal care of the mother. Socio cultural factors include educational status.

**Perceived benefits of action:**

Anticipated benefits or outcomes affect the person's plan to participate in health – prompting behaviours and may facilitate continued practice.

In this present study, the perceived benefits include.

Prevention of complication in antenatal, intranatal & postnatal period

- o Anxiety
- o Pain
- o prevent unnecessary medical intervention

**Perceived barriers to action:**

A person's perceptions about available time, inconvenience, expense, and difficulty in performing the activity may act as barriers.

In the present study the perceived barriers include:

- Lack of knowledge related to modified Lamaze method

- Lack of permission to practices modified Lamaze method

- Lack of in-service education related to modified Lamaze method
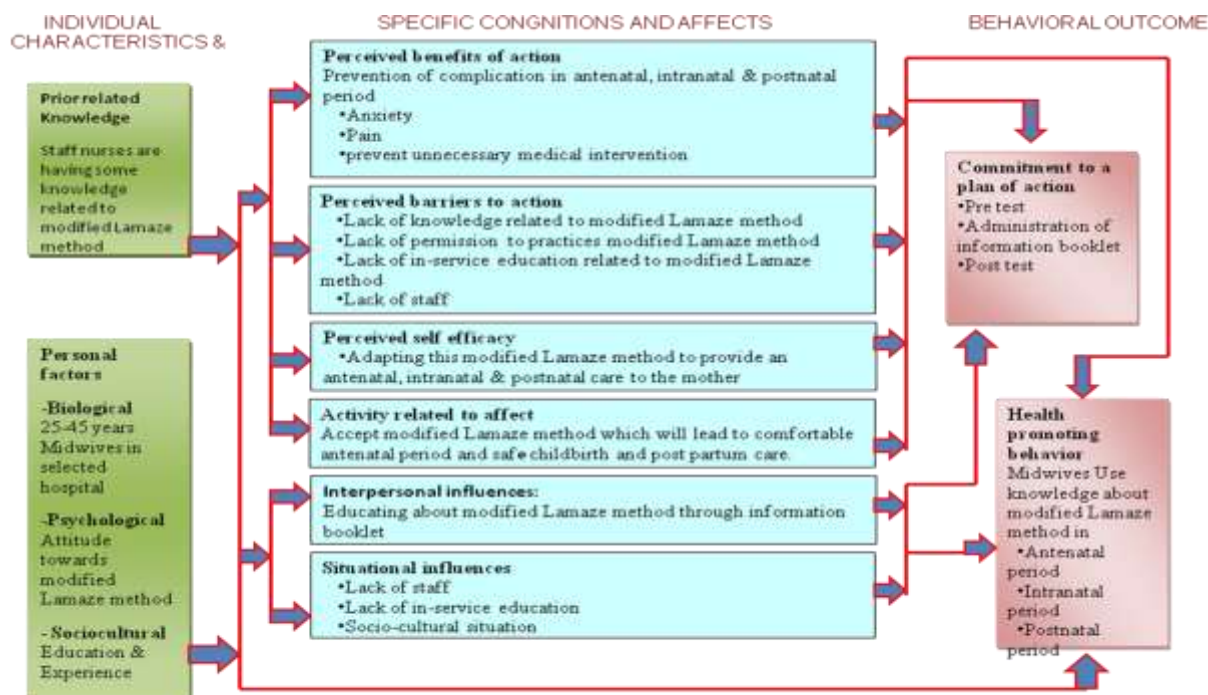
- Lack of staff



Figure1: Conceptual framework based on health promotion model. Adapted from Pender, N. J, Murdaugh, C.L., Parsons, MA (2002)

**RESEARCH METHODOLOGY**

Research methodology could be defined as a way to solve the research problem systematically. It deals with defining the problem, formulation of hypothesis, methods adopted for data collection and statistical techniques used for analyzing the data with logical reason behind it. **(Basvanthappa, 2007)**

It may be understood as a science of studying how research is done scientifically. The scope of research methodology is wider than that of research methods. Research methodology is not only about the research methods but also consider the logic behind the methods use in the context of the research study.

In this chapter the details of the methodology that was selected by the investigator in order the study was conducted with the assessing the knowledge of staff nurses regarding the modified Lamaze method.

**RESEARCH APPROACH**

'Research approach refers to the researchers overall plan for obtaining answer to the research questions for testing the research hypothesis.' **Joliet Hunger (1985)**

Research approach indicates the basic procedure for conducting research. The choice of the appropriate approach depends on the purpose of the study. The present study aimed at developing & determining the effectiveness of information booklet on knowledge of staff nurses regarding modified Lamaze method.

The research method adopted for the study was an evaluative approach. It was considered to be most suitable method here because it involves the collection of data from a representation sample of population to assess the effectiveness of information booklet on knowledge related to modified Lamaze method among the staff nurses working in maternity unit of selected hospitals of Indore.

**STATISTICAL ANALYSIS**

Statistical analysis of research findings and their interpretations are mandatory for scientific evolution of research study in nursing science. Statistical interpretation of the data provides valid inferences and involves the translation of information collected during the course of the research study into interpretable, convenient and descriptive terms.

Statistical techniques provide very effective data for understanding and in-depth knowledge. This present chapter is highlighted the statistical analysis and the interpretation of the data which is collected **"A study to assess the effectiveness of information booklet on knowledge regarding modified Lamaze method among midwives in selected hospital of Indore".**

The main objective of using statistics is to reduce data to an intelligible and interpretable form so that the relations of research formulations may be studied and verified empirical research evidences by testing of hypothesis.

Both, descriptive and inferential statistics have been used in the present research study. The descriptive statistics have been used to present the features and characteristic of the midwives of selected hospitals while inferential statistics have been used to draw the valid inferences regarding the effectiveness of information booklet on knowledge regarding modified Lamaze method from collected data.

Analysis and interpretation of data were based on data collected through non-structured knowledge *questionnaire* regarding modified Lamaze method among the midwives at the level of 0.05.

**ORGANIZATION AND ANALYSIS OF RESEARCH FINDINGS:** A total of 80 responses of midwives; were treated as responses of subjects for the study obtained and entered into

the computer database. The responses were calculated and analyzed by using various statistical tools. The descriptive statistics like mean and standard deviation of knowledge regarding modified Lamaze method among the midwives were obtained.

A parametric test, student's paired t-test has been used to observe the significance of the difference between means of pre-test and post–test scores. The Pearson's Chi-Square test had also used to observe the association between knowledge regarding modified Lamaze method among the midwives and various selected demographic variables.

The probability values from $p<0.05$ to $p<0.01$ were considered as significant while from $p<0.001$ to $p<0.009$ were considered as highly significant. The present chapter concerned with the tabulated and statistically analyzed data. The organization and analysis of the data is presented under the following heads-

**Section-I : <u>Main features and characteristics of midwives</u>**

**Demographic presentation of data in terms of frequency and percentage distribution**

The section comprises of selected demographic variables with their presentation including analysis and interpretation of data in terms of frequency and percentage distribution. The present section concerned with the data pertaining to the baseline information of the midwives working in selected hospitals of Indore city.

**Table 1.1- Frequency and percentage distribution of subjects according to age**

| Age (in years) | Frequency | Percentage (%) |
|---|---|---|
| 20-25 | 21 | 26.3 |
| 26-30 | 25 | 31.3 |
| 31-35 | 15 | 18.8 |
| >35 | 19 | 23.8 |
| TOTAL | 80 | 100.0 |

The information regarding age distribution of studied subject's is depicted in the table 1.1 and it is reported that most of the midwives (25, 31.3%) were from 26-30 years age group. 21 (26.3%) and 15 (18.8%) midwives belong to 20-25 and 31-35 years age group respectively.

Approximately, one-fourth (19, 23.8%) of midwives were more than 35 years of age also included in this study.
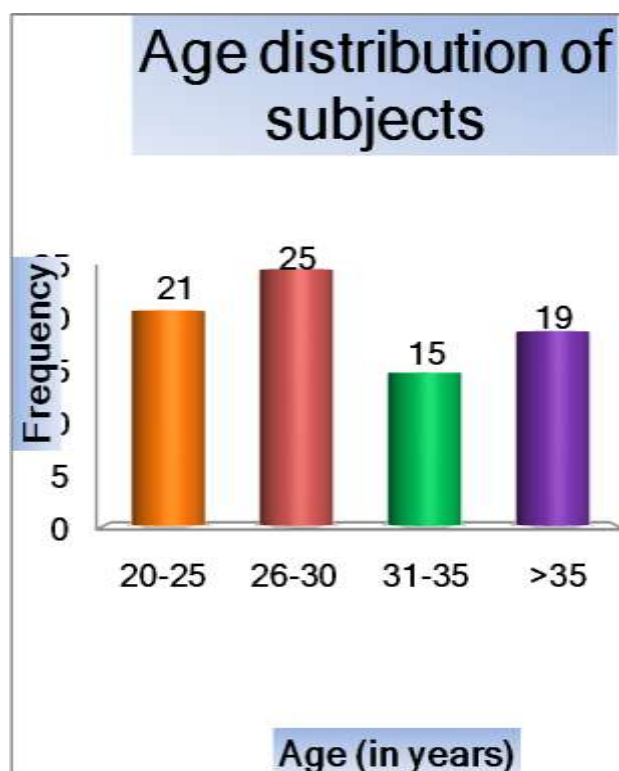
Figure 1.1-Bar diagram depicting age distribution of subjects

**Table 1.2- Frequency and percentage distribution of subjects according to professional qualification**

| Professional Qualification | Frequency | Percentage (%) |
|---|---|---|
| Auxiliary Nursing Midwifery (ANM) | 20 | 25.0 |
| General Nursing Midwifery (GNM) | 16 | 20.0 |
| Post Basic B. Sc. Nursing | 12 | 15.0 |
| B. Sc. (Nursing) | 32 | 40.0 |
| **TOTAL** | **80** | **100.0** |

Professional education of midwives is shown in the table 1.2. It was observed that most of the subjects (32, 40.0%) had possess B. Sc. (Nursing) while Auxiliary Nursing Midwifery (ANM) course had acquired by one-fourth (25.0%) subjects. 16 (20.0%) had

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passed General Nursing Midwifery (GNM) course followed by Post Basic B. Sc. (Nursing) which had completed by 12 subjects.
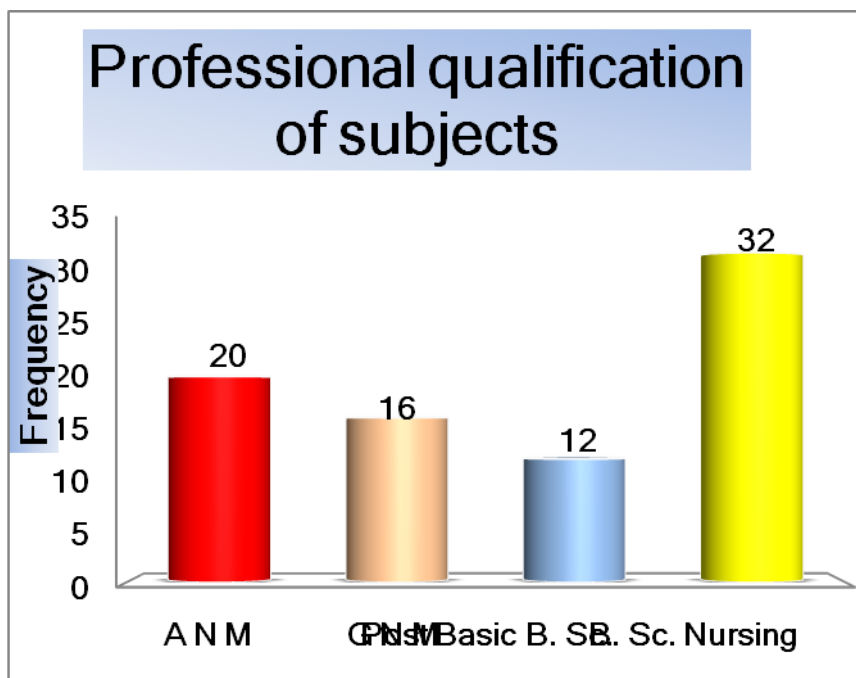


Figure 1.2-Bar diagram depicting professional qualification of subjects

**Table 1.3- Frequency and percentage distribution of subjects according to clinical experience in maternity unit**

| Clinical Experience (in years) | Frequency | Percentage (%) |
|---|---|---|
| **0-5** | 38 | 47.5 |
| **6-10** | 21 | 26.3 |
| **11-15** | 14 | 17.5 |
| **>15** | 7 | 8.8 |
| **TOTAL** | **80** | **100.0** |

The above table 1.3 deals with the clinical experience of midwives in maternity unit. It is revealed from the table that approximately half of (38, 47.5%) midwives acquired 0-5 years of clinical experience in maternity unit followed by 21 (26.3%) midwives had 6-

10 years of clinical experience. Few (7, 8.8%) midwives had a vast clinical experience of more than 15 years.
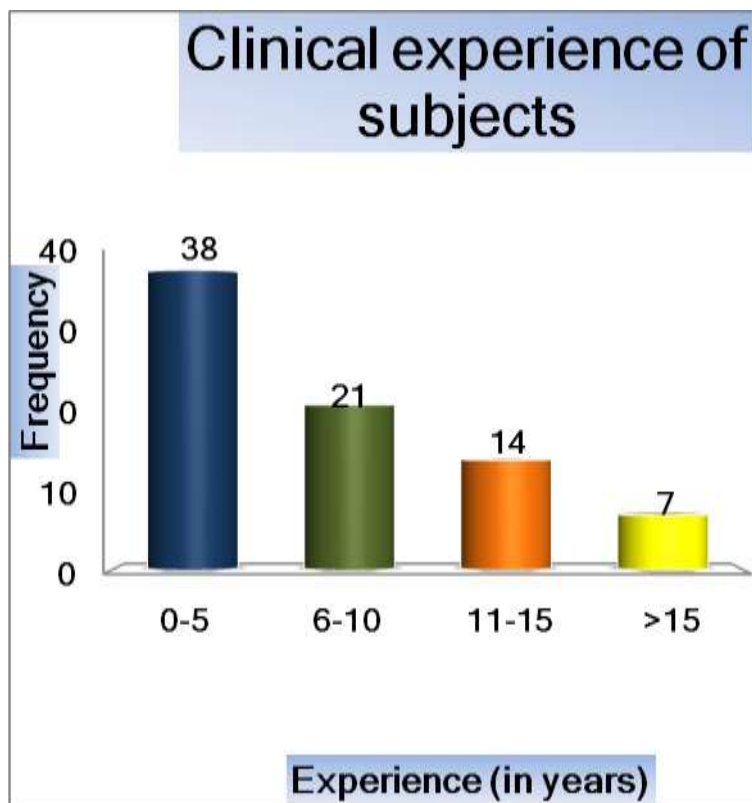


Figure 1.3-Bar diagram depicting distribution of clinical experience in maternity unit of subjects

**Table 1.4- Frequency and percentage distribution of subjects according to source of previous knowledge**

| Source of previous knowledge | Frequency | Percentage (%) |
|---|---|---|
| No knowledge | 60 | 75.0 |
| Electronic media | 9 | 11.3 |
| Journals and booklets | 9 | 11.3 |
| Workshop | 2 | 2.5 |
| TOTAL | 80 | 100.0 |

It is easily seen in the table 1.3 that three-fourth (75.0%) of midwives had no knowledge about modified Lamaze method. It is also revealed from the table that 9 (11.3%) midwives acquired knowledge about modified Lamaze method by electronic media and as well as by journals and booklets. Only 2 (2.5%) midwives gained knowledge by participation in workshop.
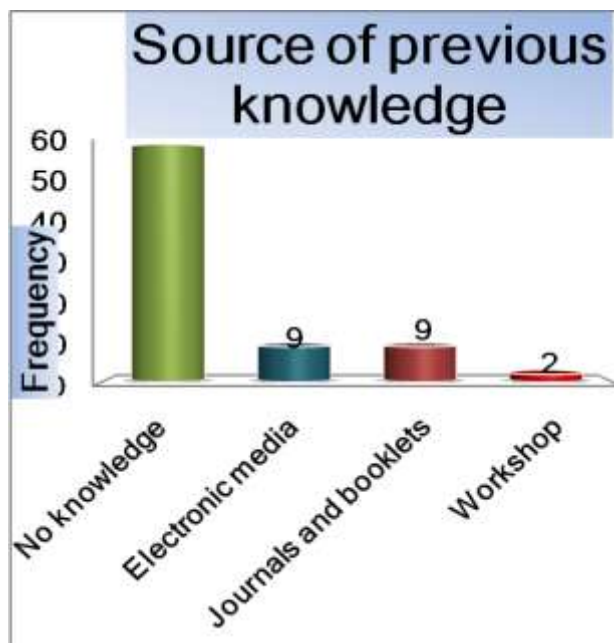


Figure 1.4-Bar diagram depicting distribution of source of previous knowledge of Subjects

**Section II–The assessment of the pre-test and post-test knowledge scores regarding modified Lamaze method**

The section-II concerns with the test scores measured by questionnaire in terms of the pre-test score and the post-test score. Analysis and interpretation of data is done in order to assess the gain in knowledge due to provided information booklet on knowledge regarding modified Lamaze method among the midwives of selected hospitals.

**Table 2.1-Frequency and percentage distribution of pre-test scores of studied subjects**

| Category and Pre-Test Score | Frequency | Percentage (%) |
|---|---|---|
| **Poor (1-10)** | 70 | 87.5 |
| **Average (11-20)** | 9 | 11.3 |
| **Good (21-30)** | 1 | 1.3 |
| *TOTAL* | **80** | **100.0** |

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The table 2.1 dealt with the information on marks scored in pre-test by studied subjects regarding knowledge about modified Lamaze method. The existing knowledge regarding modified Lamaze method was shown by pre-test scores and it is easily seen in the table that more than three-fourth (70, 87.5%) of the subjects had no knowledge about modified Lamaze method as measured in **Poor** category which are needed careful attention towards the present problem while some subjects (9, 11.3%) were observed in **Average** category and slightly aware about modified Lamaze method. Only one midwife was found in **Good** category which clearly impacted that an awareness programme is needed about modified Lamaze method among midwives working in maternity unit.

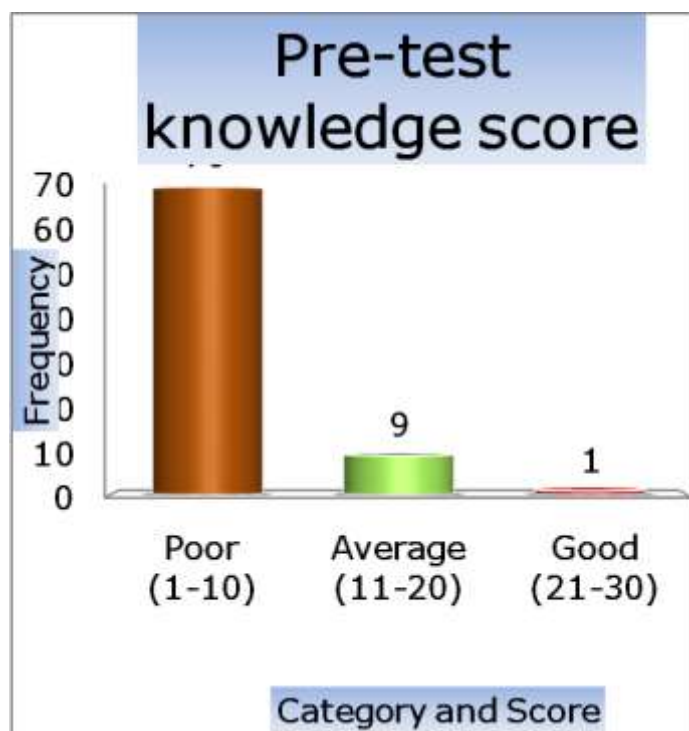**DIAGRAMMATIC PRESENTATION OF PRE-TEST KNOWLEDGE SCORES OF STUDIED SUBJECTS**



Figure 2.1-Bar diagram showing distribution of pre-test knowledge scores of studied subjects

**Table 2.2-Frequency and percentage distribution of post-test scores of studied subjects**

| Category and Post-Test Score | Frequency | Percentage (%) |
|---|---|---|
| Poor (1-10) | 2 | 2.5 |
| Average (11-20) | 58 | 72.5 |
| Good (21-30) | 20 | 25.0 |
| *TOTAL* | **80** | **100.0** |

The information on marks scored by studied subjects in post-test is identified in the table 2.2. The clear impact of information booklet in terms of gain in knowledge regarding modified Lamaze method among the midwives is shown by post-test scores.

Almost all the subjects benefited by information booklet and showed enhancement in their respective knowledge about modified Lamaze method in post-test as only two subjects were left in **Poor** category. Major proportion of subjects (58, 72.5%) was promoted in **Average** category reflected the impact of information booklet that now they are aware about modified Lamaze method. One-fourth (20, 25.0%) subjects attained **Good** category reflected that after administration of information booklet they are now very much aware about modified Lamaze method.

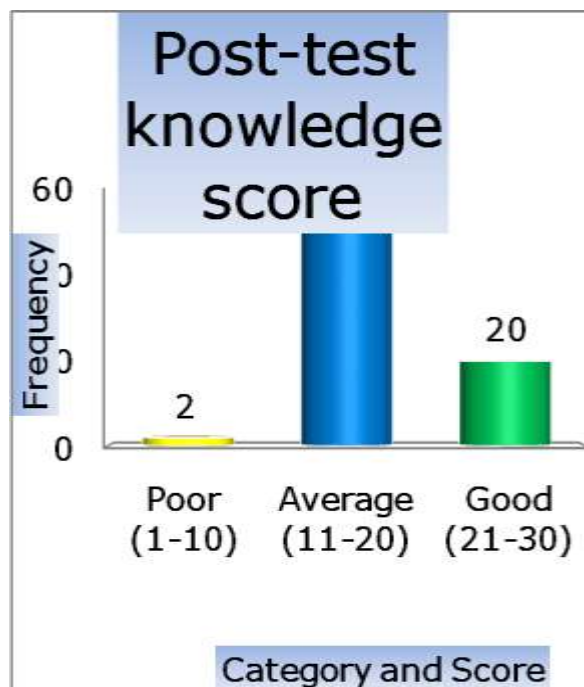**DIAGRAMMATIC PRESENTATION OF POST-TEST KNOWLEDGE SCORES OF STUDIED SUBJECTS**



Figure 2.2-Bar diagram showing distribution of post-test knowledge scores of studied subjects

**Section III–Comparison between test scores and effectiveness of information booklet on knowledge regarding modified Lamaze method**

The section-III concerns with the comparison between pre-test score and post-test score in terms of their respective means. Analysis and interpretation of data is done in order to assess the effectiveness of information booklet on knowledge regarding modified Lamaze method among the midwives of selected hospitals.

**Table 3.1- Mean and Standard Deviation of Knowledge Scores**

| Knowledge in | Mean ($\bar{X}$) | Mean (%) | Std. Deviation (s) |
|---|---|---|---|
| Pre-test | 7.20 | 31.54 | 3.227 |
| Post-test | 15.63 | 68.46 | 4.196 |
| TOTAL | 22.83 | 100.00 | 7.423 |

The information regarding mean, percentage of mean and the standard deviation of test scores is shown in table 3.1. Mean knowledge score about modified Lamaze method in pre-test score was $7.20 \pm 3.227$ while gain in knowledge score had highlighted in mean score of post-test as it was rose to $15.63 \pm 4.196$. The percentage of mean knowledge scores in pre and post-test is obtained with a high significant difference as it was 31.54% and 68.46% respectively.

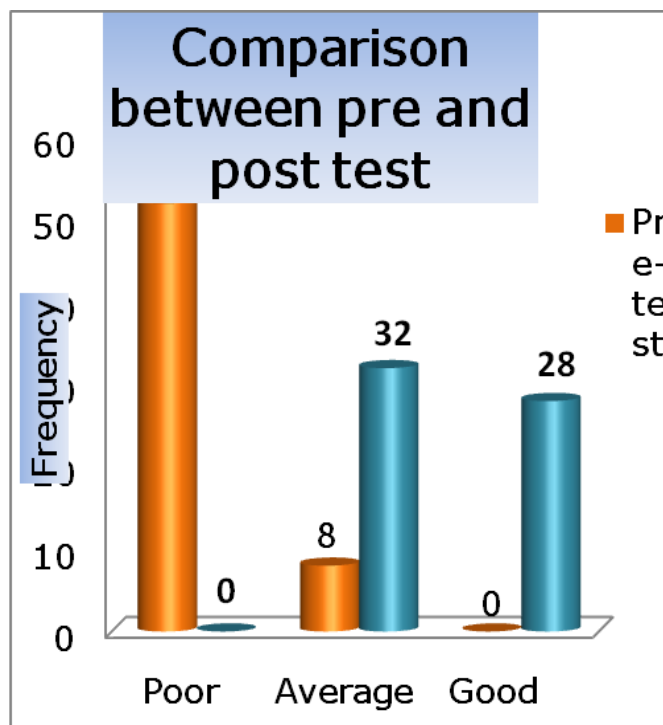**CATEGORIAL COMPARISON BETWEEN PRE AND POST TEST KNOWLEDGE SCORES**



Figure 3.1-Bar diagram showing categorical comparison of knowledge scores between pre-test and post-test

**Table 3.2-Comparison in knowledge scores between pre and post test scores**

|  | Mean Diff | Std. Error of Diff | t-value | p-value (LOS) |
|---|---|---|---|---|
| **Pre-test** **Post-test** | 8.43 | 0.402 | **20.98** | **0.001** $^{\otimes}$ |

$^{\otimes}$ The mean difference is highly significant for 79 degrees of freedom at the 0.001 level of significance. LOS-level of significance

It is easily seen in the table 3.2 that there was a significant mean difference of 8.43 points between pre-test and post-test knowledge scores. A very highly significant value (p<0.001, Two-tailed) was measured when means of test scores regarding knowledge had compared.

Moreover, it is statistically concreted that pre-test and post-test scores are independent and had a real high significant mean difference which clearly impacted the effectiveness of information booklet on knowledge regarding modified Lamaze method in terms of gain in knowledge related to modify Lamaze method among midwives of selected hospitals at Indore city.

Furthermore, it is confirmed from all the tables of section-II and section-III that there is a significant difference in means of pre and post test scores which fulfills the second and third objectives **"The assessment of the pre-test and post-test knowledge regarding Lamaze method"** and "**The assessment of the effectiveness of information booklet on knowledge regarding modified Lamaze method"** of the present study.

**COMPARISON BETWEEN INDIVIDUAL KNOWLEDGE SCORES OBTAINED IN PRE AND POST TEST**
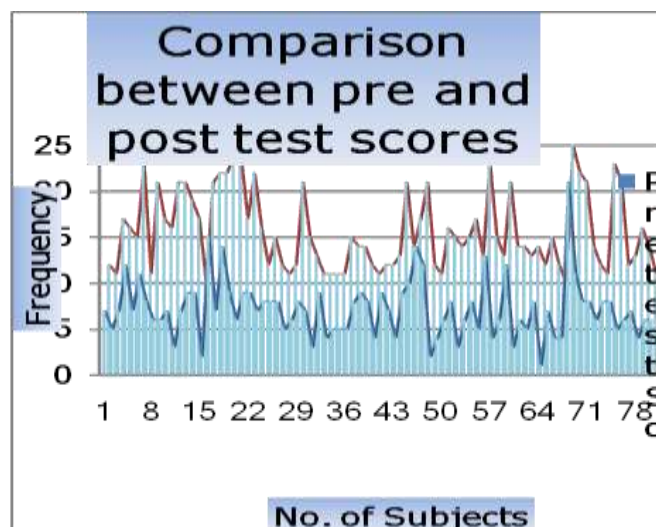


Figure 3.2-Line diagram showing comparison of individual knowledge scores between pre-test and post-test of studied subjects

**Section IV–Association of knowledge scores between pre-test and post-test with selected demographic variables**

The present section-IV deals with the associations of levels of pre-test and post-test knowledge scores related to modified Lamaze method among midwives of selected hospitals at Indore city with various selected demographic variables.

**Table 4.1-Association between age and pre-test scores**

| Age (in years) | Category and Pre-test Scores | | | Total |
|---|---|---|---|---|
| | Poor 0-10 | Average 11-20 | Good 21-30 | |
| 20-25 | 17 (24.3) | 4 (44.4) | 0 (0.0) | **21 (26.3)** |
| 26-30 | 25 (0.0) | 0 (0.0) | 0 (0.0) | **25 (31.3)** |
| 31-35 | 15 (21.4) | 0 (0.0) | 0 (0.0) | **15 (18.8)** |
| >35 | 13 (18.6) * | 5 (55.6) | 1 (100.0) | **19 (23.8)** |
| Total | **70 (100.0)** | **9 (100.0)** | **1 (100.0)** | 80 (100.0) |
| $\chi^2_6 = 14.29^{**}$       **p<0.03 (Significant)** | | | | |

* The figures in parenthesis denote corresponding %. ** The association is significant for 6 degrees of freedom and at the 0.03 level of significance.

The association of age with pre-test scores is shown in present table 4.1. The probability value for Chi-Square test indicated a significant value (p<0.03, two-tailed). Hence, it is reported that there is a significant association between age and pre-test scores.

Moreover, it is reflected by the table that age is the factor which is partially influenced the knowledge regarding modified Lamaze method among midwives of selected hospitals at Indore city.

The information regarding association of professional qualification with pre-test scores is shown in present table 4.2. The observed probability value for Chi-Square test indicated a significant value (p<0.05, two-tailed). Hence, it is reported that there is a significant association between professional qualification and pre-test scores.

Moreover, it is highlighted that professional qualification is the factor which may be influenced the knowledge regarding modified Lamaze method among midwives of selected hospitals at Indore city.

**Table 4.2-Association between professional qualification and pre-test scores**

| Professional Qualification | Category and Pre-test Scores | | | Total |
|---|---|---|---|---|
| | Poor 0-10 | Average 11-20 | Good 21-30 | |
| Auxiliary Nursing Midwifery (ANM) | 17 (24.3) | 3 (33.3) | 0 (0.0) | 20 (25.0) |
| General Nursing Midwifery (GNM) | 13 (18.6) | 3 (33.3) | 0 (0.0) | 16 (20.0) |
| Post Basic B. Sc. Nursing | 8 (11.4) | 3 (33.3) | 1 (100.0) | 12 (15.0) |
| B. Sc. (Nursing) | 32 (45.7) * | 0 (0.0) | 0 (0.0) | 32 (40.0) |
| Total | 70 (100.0) | 9 (100.0) | 1 (100.0) | 80 (100.0) |
| $\chi^2_6 = 13.59^{**}$ (Significant) | | | | p<0.05 |

$^{*}$ The figures in parenthesis denote corresponding %. $^{**}$ The association is significant for 6 degrees of freedom and at the 0.05 level of significance.

It is exactly reflected by the table 4.3 that clinical experience in maternity unit plays a very significant role in terms of knowledge regarding modified Lamaze method as the measured value of the chi-Square test indicated a significant value (p<0.05, two-tailed). Therefore, it is determined that there is a significant association between clinical experience in maternity unit and pre-test scores.

Henceforth, it is concreted that clinical experience in maternity unit is the factor which may be partially influenced the knowledge regarding modified Lamaze method among midwives of selected hospitals at Indore city.

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**Table 4.3-Association between clinical experience in maternity unit and pre-test scores**

| Clinical experience (in years) | Category and Pre-test Scores | | | Total |
|---|---|---|---|---|
| | Poor 0-10 | Average 11-20 | Good 21-30 | |
| **0-5** | 33 (47.1) | 5 (55.6) | 0 (0.0) | **38 (47.5)** |
| **6-10** | 18 (25.7) | 3 (33.3) | 0 (0.0) | **21 (26.3)** |
| **11-15** | 14 (20.0) | 0 (0.0) | 0 (0.0) | **14 (17.5)** |
| **>15** | 5 (7.1)* | 1 (11.1) | 1 (100.0) | **7 (8.8)** |
| **Total** | **70 (100.0)** | **9 (100.0)** | **1 (100.0)** | **80 (100.0)** |
| $\chi^2_6 = 12.82^{**}$ (Significant) | | | | **p<0.05** |

\* The figures in parenthesis denote corresponding %. The association is significant for 6 degrees of freedom and at the 0.05 level of significance.

**Table 4.4-Association between source of previous knowledge and pre-test scores**

| Source of previous knowledge | Category and pre-test Scores | | | Total |
|---|---|---|---|---|
| | Poor 0-10 | Average 11-20 | Good 21-30 | |
| **No knowledge** | 54 (77.1) | 6 (66.7) | 0 (0.0) | **60 (75.0)** |
| **Electronic media** | 9 (12.9) | 0 (0.0) | 0 (0.0) | **9 (11.3)** |
| **Journals and booklets** | 7 (10.0) | 1 (11.1) | 1 (100.0) | **9 (11.3)** |
| **Workshop** | 0 (0.0)* | 2 (22.2) | 0 (0.0) | **2 (2.5)** |
| **Total** | **70 (100.0)** | **9 (100.0)** | **1 (100.0)** | **80 (100.0)** |
| $\chi^2_6 = 25.04^{**}$ p<0.001 (Highly Significant) | | | | |

\* The figures in parenthesis denote corresponding %. \*\* The association is highly significant for 6 degrees of freedom and at the 0.001 level of significance.

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The table 4.4 exactly shown that source of previous knowledge of childbirth technique significantly impacted the knowledge regarding modified Lamaze method. The observed probability value of chi-square test guided a highly significant value (p<0.001, two-tailed). Henceforth, it is reported without any doubt that there is a highly significant association between source of previous knowledge and pre-test scores.

Moreover, it is statistically confirmed that source of previous knowledge is the most important factor which is highly influenced the knowledge regarding modified Lamaze method among midwives working in maternity unit.

**Table 4.5-Association between age and post-test scores**

| Age (in years) | Category and Post-test Scores | | | Total |
|---|---|---|---|---|
| | Poor 0-10 | Average 11-20 | Good 21-30 | |
| 20-25 | 0 (0.0) | 10 (17.2) | 11 (55.0) | **21 (26.3)** |
| 26-30 | 1 (50.0) | 22 (37.9) | 2 (10.0) | **25 (31.3**) |
| 31-35 | 0 (0.0) | 14 (24.1) | 1 (5.0) | **15 (18.8**) |
| >35 | 1 (50.0) [*] | 12 (20.7) | 6 (300.0) | **19 (23.8**) |
| Total | **2 (100.0)** | **58 (100.0)** | **20 (100.0)** | **80 (100.0)** |
| $\chi^2_6 = 16.99^{**}$ | **p<0.009 (Highly Significant)** | | | |

[*] The figures in parenthesis denote corresponding %. [**] The association is highly significant for 6 degrees of freedom and at the 0.009 level of significance.

The table 4.5 highlighted that age of midwives in the maternity unit played a significant role in boosting knowledge regarding modified Lamaze method. The table is showing the association between age with post-test scores wherever the probability value for Chi-Square test indicated a highly significant value (p<0.009, two-tailed) which followed that there is a highly significant association between age and post-test scores.

Moreover, it is statistically confirmed that age is the most important factor which is highly influenced the knowledge regarding modified Lamaze method among midwives of selected hospitals at Indore city.

**Table 4.6-Association between professional qualification and post-test scores**

| Professional Qualification | Category and Post-test Scores | | | Total |
|---|---|---|---|---|
| | Poor 0-10 | Average 11-20 | Good 21-30 | |
| Auxiliary Nursing Midwifery (ANM) | 0 (0.0) | 18 (31.0) | 2 (10.0) | **20 (25.0)** |
| General Nursing Midwifery (GNM) | 1 (50.0) | 6 (10.3) | 9 (45.0) | **16 (20.0)** |
| Post Basic B. Sc. Nursing | 0 (0.0) | 7 (12.1) | 5 (25.0) | **12 (15.0)** |
| B. Sc. (Nursing) | 1 (50.0) * | 27 (46.6) | 4 (20.0) | **32 (40.0)** |
| Total | **2 (100.0)** | **58 (100.0)** | **20 (100.0)** | **80 (100.0)** |

$$\chi^2_6 = 17.64^{**} \quad \text{p<0.007 (Highly Significant)}$$

*The figures in parenthesis denote corresponding %. **The association is highly significant for 6 degrees of freedom and at the 0.007 level of significance.

It is found in various research studies that professional qualification of midwives in maternity unit had a significant role in terms of enhancement of knowledge and practice. The table 4.6 is dealt with the information on association of professional qualification with post-test scores. The observed Chi-Square test probability value indicated a highly significant value (p<0.007, two-tailed). Henceforth, there is no doubt in confirmation that there is a highly significant association between professional qualification and post-test scores.

Moreover, it is highlighted that professional qualification is the most significant factor which is highly impacted the knowledge regarding modified Lamaze method among midwives of selected hospitals at Indore city.

The table 4.7 highlighted that clinical experience in maternity unit may be significantly impacted the knowledge of midwives regarding modified Lamaze method. The observed probability value indicated a significant value (p<0.05, two-tailed) at the 0.05 level. Henceforth, it is recorded that there is a significant association between clinical experience in maternity unit and post-test scores.

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**Table 4.7-Association between clinical experience in maternity unit and post-test scores**

| Clinical experience (in years) | Category and post-test Scores | | | Total |
|---|---|---|---|---|
| | Poor 0-10 | Average 11-20 | Good 21-30 | |
| 0-5 | 1 (50.0) | 23 (39.7) | 14 (70.0) | **38 (47.5)** |
| 6-10 | 0 (0.0) | 16 (27.6) | 5 (25.0) | **21 (26.3**) |
| 11-15 | 0 (0.0) | 14 (24.1) | 0 (0.0) | **14 (17.5)** |
| >15 | 1 (50.0) [*] | 1 (8.6) | 1 (5.0) | **7 (8.8)** |
| Total | **2 (100.0)** | **58 (100.0)** | **20 (100.0)** | **80 (100.0)** |

$$\chi_6^2 = 12.98^{**} \quad \text{p<0.05 (Significant)}$$

[*] The figures in parenthesis denote corresponding %. [**] The association is significant for 6 degrees of freedom and at the 0.05 level of significance.

Henceforth, it is statistically inference that clinical experience in maternity unit may be partially influencing the knowledge regarding modified Lamaze method among midwives working in maternity unit.

**Table 4.8-Association between source of previous knowledge and post-test scores**

| Source of previous knowledge | Category and post-test Scores | | | Total |
|---|---|---|---|---|
| | Poor 0-10 | Average 11-20 | Good 21-30 | |
| No knowledge | 1 (50.0) | 44 (75.9) | 15 (75.0) | **60 (75.0)** |
| Electronic media | 0 (0.0) | 9 (15.5) | 0 (0.0) | **9 (11.3**) |
| Journals and booklets | 1 (50.0) | 5 (8.6) | 3 (15.0) | **9 (11.3**) |
| Workshop | 0 (0.0) [*] | 0 (0.0) | 2 (10.0) | **2 (2.5**) |
| Total | **2 (100.0)** | **58 (100.0)** | **20 (100.0)** | **80 (100.0)** |

$$\chi_6^2 = 12.86^{**} \quad \text{p<0.05 (Significant)}$$

[*] The figures in parenthesis denote corresponding %.

* * The association is significant for 6 degrees of freedom and at the 0.05 level of significance.

It is easily observable in the table 4.8 that source of previous knowledge related to various childbirth techniques may be significantly boosted the knowledge regarding modified Lamaze method. The observed probability value of chi-square test directed a significant value ($p<0.05$, two-tailed). Henceforth, it is obtained that there is a significant association between source of previous knowledge and post-test scores.

Finally, it is statistically measured that source of previous knowledge is a factor which may be partially influenced the knowledge regarding modified Lamaze method among midwives working in maternity unit.

**Furthermore, it is concluded from above all tables of section-IV that there is a significant association between knowledge in pre and post test and the selected demographic variables which confirms the fourth objective of the present study.**

**DISCUSSION**

This study intends to increase the knowledge of staff nurses to give care to antenatal, intranatal and postnatal mother to use of modified Lamaze method. This study aims to assess the effectiveness of information booklet regarding knowledge related to modified Lamaze method among staff nurses working in labour room of the selected hospitals of Indore.

**OBJECTIVES OF THE STUDY-**

1. To assess the pretest knowledge regarding modified Lamaze method.
2. To assess the post test knowledge regarding modified Lamaze method.
3. To assess the effectiveness of information booklet on knowledge regarding modified Lamaze method.
4. To find out the association between knowledge and selected demographic variable.

**DISCUSSION**

**Discussion of baseline data of the staff nurses:**

The information regarding age distribution of studied subject's is depicted in the table 1.1 and it is reported that most of the midwives (25, 31.3%) were from 26-30 years age group. 21 (26.3%) and 15 (18.8%) midwives belong to 20-25 and 31-35 years age group respectively.

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Approximately, one-fourth (19, 23.8%) of midwives were more than 35 years of age also included in this study.

Professional education of midwives is shown in the table 1.2. It was observed that most of the subjects (32, 40.0%) had possess B. Sc. (Nursing) while Auxiliary Nursing Midwifery (ANM) course had acquired by one-fourth (25.0%) subjects. 16 (20.0%) had passed General Nursing Midwifery (GNM) course followed by Post Basic B. Sc. (Nursing) which had completed by 12 subjects.

The clinical experience of midwives in maternity unit. It is revealed from the table that approximately half of (38, 47.5%) midwives acquired 0-5 years of clinical experience in maternity unit followed by 21 (26.3%) midwives had 6-10 years of clinical experience. Few (7, 8.8%) midwives had a vast clinical experience of more than 15 years.

 The three-fourth (75.0%) of midwives had no knowledge about modified Lamaze method. It is also revealed from the table that 9 (11.3%) midwives acquired knowledge about modified Lamaze method by electronic media and as well as by journals and booklets. Only 2 (2.5%) midwives gained knowledge by participation in workshop.

**Discussion about the pre-test knowledge**

The information on marks scored in pre-test by studied subjects regarding knowledge about modified Lamaze method. The existing knowledge regarding modified Lamaze method was shown by pre-test scores that more than three-fourth (70, 87.5%) of the subjects had no knowledge about modified Lamaze method as measured in **Poor** category which are needed careful attention towards the present problem while some subjects (9, 11.3%) were observed in **Average** category and slightly aware about modified Lamaze method.. Only one midwife was found in **Good** category which clearly impacted that an awareness programme is needed about modified Lamaze method among midwives working in maternity unit.

**Discussion of effectiveness of information booklet**

This study that there is a significant increase in knowledge of staff nurse after the information booklet. Where the t-value is 20.98 (p<0.001, Two-tailed). In this study hypothesis **R H1** made by the investigator is accepted that there is a significant increase in level of knowledge after implementation of information booklet regarding modified Lamaze method among the staff nurse who participated in study

**Discussion of association between pre tests score and selected demographic variable.**

The study shows that there is significant association between age of staff nurses, professional education, clinical experience in maternity unit, sources of knowledge.

There was a significant $\chi_6^2 = 14.29^{**}$ **p<0.03 (Significant) (**association between age of staff nurses and her knowledge on modified Lamaze method)

There was a significant $\chi_6^2 = 13.59^{**}$ **p<0.05 (Significant) (**association of professional education with levels of knowledge identified in pre test scores)

There was a significant $\chi_6^2 = 12.82^{**}$ **p<0.05 (Significant) (**Association of clinical experience in maternity unit with levels of knowledge identified in pre test scores)

There was a significant $\chi_6^2 = 25.04^{**}$ **p<0.001 (Highly Significant)** (Association of sources of knowledge with levels of knowledge identified in pre test scores regarding modified Lamaze method)

The hypothesis $RH_2$ - made by the investigator that, there would be a significant association between selected demographic variable and pre test knowledge on modified Lamaze method was accepted with all variables that are age, professional education, and clinical experience in maternity unit, source knowledge related modified Lamaze method.

**SUMMARY**

The problem statement was

"A study to assess the effectiveness of information booklet on knowledge regarding modified Lamaze method among midwives in selected hospital Indore."

The main objectives include

1. To assess the pretest knowledge regarding modified Lamaze method.
2. To assess the post test knowledge regarding modified Lamaze method.
3. To assess the effectiveness of information booklet on knowledge regarding modified Lamaze method.
4. To find out the association between knowledge and selected demographic variable.

This study assumes that majority of staff nurse are not aware modified Lamaze method and it occurs because of less knowledge. It is assumed that information booklet shall improve the knowledge of staff nurse regarding modified Lamaze method. The conceptual framework of the study based on Health promotion model.

A pre experimental research approach was adopted in the study. The population of the study consisted of all staff nurses working in maternity unit of selected hospital of Indore. Convenient sampling technique was utilized to select 80 staff nurses based on predetermined criteria. The investigator prepared a structured questionnaire containing 30 items to assess the knowledge of the staff nurses regarding modified Lamaze method.

Eight experts did the validation of the tool. Reliability of the tool was established prior to the pilot study. Reliability of the tool was found to be structured knowledge questionnaire (schedule) was found to be 'r =0.87' for knowledge questionnaire pilot study was conducted on 10 staff nurses to check the feasibility and practicability of the study. This gave a basis for investigator to conduct the actual study.

Actual study was conducted on 80 staff nurses those who are working maternity unit of the selected hospital, Indore. The duration of the study was from  15 /02/2013 to 25/02/2013. Based on the objectives and the assumptions the data was analyzed and using various descriptive and inferential tests is ($\chi 2$, t) test.

The assessment of knowledge of the staff nurse result that 87.3% has poor knowledge regarding modified Lamaze method while 11.3% were average in knowledge

There was significant association of pre-test knowledge regarding the modified Lamaze method and age, professional education, clinical experience in maternity unit, source of knowledge. The findings were statistically significant.

On the whole carrying out the present study was really an enriching experience to investigator. It also helped a great deal to explore and improve the knowledge of the researcher. The constant encouragement and guidance of the guide, cooperation and interest of the respondents to participate in the study, contributed to the fruitful completion of the study.

**CONCLUSION**

 After the detailed analysis, this study leads to the following conclusion: Data presented in table 4.2.1 show that 87.3% has poor knowledge regarding modified Lamaze method while 11.3% were found average in knowledge.

After the implementation of information booklet, there is a significant increase in knowledge of staff nurse regarding modified Lamaze method. Which is calculated by t-test and the result was 20.98 (Table -3.2).

There was significant association between knowledge regarding the modified Lamaze method and age, professional education, clinical experience in maternity unit, source of knowledge.

Hypothesis RH2 made by the investigator that there is a significant increase of knowledge of the staff nurse regarding modified Lamaze method was accepted.

Hypothesis RH1 made by the investigator that, there would be a significant association between selected demographic variable and pre test knowledge on modified Lamaze method was accepted with all variables that are age, , professional education, clinical experience in maternity unit, source of knowledge was accepted.

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