

# Pre Experimental Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Institutional Delivery among Primi Gravida Mothers in the Selected Rural Areas of Dehradun

Deeksha Rawat

**Abstract:** ***Background:** The institutional delivery is being widely promoted because of its ability to promote child survival and reduce risk of maternal mortality. Institutional delivery gives a safe environment for the mother to avoid any risk of medical complications during labour. Institutional delivery takes the responsibility of offering childbirth and prenatal education classes to help the parents of the newborn baby. India is a third-world country which has a high growth rate, as it also has a high number of people living in BPL (below poverty line) level. **Methodology:** An evaluative research approach with one group pretest and post test Pre experimental design was used, The sample consisted of 30 Primi gravida mothers in selected rural areas of Dehradun. By Non Probability purposive sampling technique. **Conclusion:** In the present study 83.33 % primi gravida mothers had inadequate knowledge; 16.66 % had moderate knowledge and none had adequate knowledge in pre-test. In post-test (76.66 %) primi gravida mothers had adequate knowledge; (23.33 %) had moderate knowledge and none had inadequate knowledge. The paired t- test value for institutional delivery is 30.03. It evidence that the planned teaching program is significantly effective on improving the knowledge of primi gravida mothers regarding institutional delivery. In the present study the results of chi square analysis that the demographic variable such as knowledge about institutional delivery shows statistical significant association with the pretest level of knowledge and there was no significant association of other demographic variables with their pretest level of knowledge. The obtained chi square value of the variables such as Age ( $\chi^2 = 5.76, P > 0.05$ ), Educational status  $\chi^2 = 2.15, P > 0.05$ , Occupation  $\chi^2 = 7.72, P > 0.05$ , Occupation  $\chi^2 = 3.57, P > 0.05$ , Income ( $\chi^2 = 0.607, P > 0.05$ ), Religion  $\chi^2 = 3.68, P > 0.05$ , Type of family  $\chi^2 = 0.146, P > 0.05$  and Source of Information  $\chi^2 = 1.99, P > 0.05$ , knowledge about institutional delivery ( $\chi^2 = 4.58, P > 0.05$ ).*

**Keywords:** structured teaching program, primi gravida mothers, institutional delivery, effectiveness

## 1. Introduction

Health is the precious possession of all human beings as it is an asset for an individual and community as well. Though health is related to individual and attained through individual efforts to quite an extent but, it also depends upon the concerted and co-operative efforts of people in the community to which the individuals belong. The health care providers including the large number of doctors and nurses, who claim to be promoters of health concentrate on making diagnosis and give therapeutic care to ill clients where as the emphasis has been on freedom from disease and currently there is a shift in this trend i.e. increasing emphasis is on preventive and promotive aspects of health. Evidence from across the world indicates that ill health disproportionately afflicts the poor, since the poor have little or no insurance against risks of ill health. The probability of ill health and its adverse effects is much more frequent and severe for those who are poor and this subgroup is mostly 'un reached' by existing health care services. The poor have much higher levels of mortality, malnutrition and fertility than the rich. The poor –rich risk ratio is 2.5 for infant mortality, 2.8 for under five mortality, 1.7 for childhood underweight and 2 for total fertility rate. There is a glaring contrast in the health status of the rich and poor in India, as shown by the differences in the various health indicators. According to WHO about 495000 maternal deaths occurred globally during the year 200 of these deaths about 243000 occurred in African countries, 20000 in America, 65000 in Eastern Mediterranean, 3000 in western pacific countries. The life time chances of maternal

death in the world as a whole is about 1 in 75 which varies from country to country. India is among those countries which have a very high maternal mortality rate. As more than 100, 000 women die each year due to complications of pregnancy and child birth, most of them within 24hrs after child birth. The National health policy 2001 recognizes that 'the morbidity and mortality levels in the country are still unacceptably high'. These unsatisfactory health indices are in turn an indication that the access to public health services is nominal and health standards are grossly inadequate for the vulnerable sections of the society in the rural states.

## Objectives

- To assess the knowledge on institutional delivery among primi gravida mothers in rural areas of Dehradun.
- To evaluate the effectiveness of structured teaching programme on institutional delivery among primi gravida mothers in the selected rural areas of Dehradun.
- To determine the association between pretest knowledge score of primi gravida mothers in the rural area and with their demographic variables.

## 2. Methodology

*"The methodology is similar to that of poster design, it must have visual impact. Effectively, the livery is promotional design on a grand scale".*

~ Tania Willis

Research methodology organizes all the components of the study deals with the type of research approach used, the setting of the study, the population, sampling technique, sample selection, the inclusion and exclusion criteria, the development of the tool, collection of data, pilot study, procedure of data collection and plan for data analysis.

**Research Approach** In view of the nature of the problem selected for the study and the objectives to be accomplished, a evaluative research approach was used in the study.

**Research Design** In the present study, pre-experimental One group pre- test and post-test research design was selected to assess the effectiveness of planned teaching programme on knowledge regarding institutional delivery among primi gravida mothers of selected rural areas at Dehradun.

**Research Setting** The study was conducted at selected rural areas of Dehradun.

**Population** In the present study, the populations were primi gravida mothers in selected rural areas of Dehradun.

**Sample** In the present study 30 primi gravida mothers in selected rural areas

**Sampling Technique:** Sample in this study were selected by using Non-Probability purposive sampling technique. Self structured questionnaire were prepared.

### 3. Data Analysis and Interpretation

This chapter deals with the data analysis and interpretation collected to assess the effectiveness of planned teaching program on knowledge of Institutional delivery among primi gravida mothers in selected rural areas of Dehradun, the purpose of this analysis is to reduce a data to a manageable and interpretable form so that the research problem can be studied and tested.

The results were computed using descriptive and inferential statistics based on objectives of the study. In descriptive statistics mean, mean percentage, median and standard deviation were used for analyzing the distribution of respondents according to their demographic characteristics i.e. age, religion, education status, occupation, type of family, monthly income, parity, area of living sources of information, In inferential statistics, Karl Pearson's coefficient of correlation, chi-square and paired t-test were used. Chi-square test was employed to associate demographic characteristics between respondents score. Paired t-test was employed to compare the pre and post-test mean level score of knowledge of respondents. The results of the study were shown in the form of tables and figures. The level of significance selected for the study was  $p < 0.05$  level.

#### Hypothesis

H1:-There is significant difference between the mean pretest and post-test knowledge scores of primi gravida mothers regarding knowledge of institutional delivery.

H2:-There is significant association between the mean pretest knowledge scores on institutional delivery with selected demographic variables.

**The organization of data for analysis is done under the following categories:** The analyzed data were organized according to the objectives and presented under the following sections.

**Section I:** Distribution of respondents according to demographic variables.

**Section II:** Comparison between pretest and posttest knowledge level.

**Section III:** Mean, Standard Deviation, and Paired t value of pretest and posttest knowledge scores.

**Section IV:** Association between pretest knowledge scores with their demographic variables.

The demographic data details according to their Age in years depicts that the majority of the respondent (50 %) 11 were in the age group between 24-29 years, (26.66 %) 10 were in the age group 18-23 years, (16.66 %) 8 were in the age group 30-35 years, and (6.66 %) 1 were in the age group above 35 years. Percentage distribution of primi gravida mothers in relation to their educational status depicted that majority of the respondent (56.67 %) 17 has primary education, (36.67 %) 11 has secondary education, (6.67 %) 2 has graduation and above, no respondent is illiterate. Percentage distribution of primi gravida mothers in relation to their Occupation depicted that majority of the respondents (60 %) 14 are housewife, (20 %) 9 are private employee, (13.33 %) 4 are private business and (6.67 %) 3 are government employee. Percentage distribution of primi gravida mothers in relation to their Monthly income that majority of the respondents (33.33 %) 12 were have monthly income 5001-10000, (20 %) 9 were have monthly income 10001-15000, (8) were have monthly income less than 5000, and (13.33 %) 1 were have monthly income above 15001. Percentage distribution of primi gravida mothers in relation to their Religion depicted that majority of the respondent (63.33 %) 19 were Hindu, (16.67 %) 05 were Muslim, (10 %) 03 were others, and (10 %) 03 were Christian. Percentage distribution of primi gravida mothers in relation to their Type of family depicted that majority of respondents (66.67 %) 20 were have nuclear family, (33.33 %) 10 were have joint family. Percentage distribution of primi gravida mothers in relation to their Source of information shows that majority of the respondents (43.33 %) 13 have source of information from radio/television/internet, (33.33 %) 10 were have source of information from family Members/ neighbor/ friends, (16.67 %) 5 have the source of information from magazines/newspapers/journal and books and (6.67 %) 2 have source of information from health personnel. Percentage distribution of primi gravida mothers in relation to their knowledge about institutional delivery shows that majority of the respondents (56.67 %) 17 have knowledge about institutional delivery and (43.33 %) 13 have no knowledge about institutional delivery.

**Section II: Comparison between pretest and posttest knowledge level.** The knowledge of Primi gravida mothers

regarding institutional delivery. In the pretest 83.33 % primi gravida mothers had inadequate knowledge; 16.66 % had moderate knowledge and none of the primi gravida mothers had adequate knowledge in pre-test. In post-test 23 (76.66 %) primi gravida mothers had adequate knowledge; 07 (23.33 %) primi gravida mothers had moderate knowledge and none of the primi gravida mothers had inadequate knowledge in post-test.

**Section 3: Table 3: Mean, Standard Deviation, and Paired t value of pretest and posttest knowledge scores.** The mean pre- test and post test knowledge score regarding institutional delivery. The paired t- test value for institutional delivery is 30.03. It was found to be significant at  $P < 0.05$  level, Hence research hypothesis (H1) is accepted and null hypothesis was rejected. It evidence that the planned teaching program (PTP) is significantly effective on improving the knowledge of primi gravida mothers regarding institutional delivery.

**Section 4: Association between pretest knowledge scores with their demographic variables** The results of chi square analysis presented in table 4 indicates that the demographic variable such as knowledge about institutional delivery shows statistical significant association with the pretest level of knowledge and there was no significant association of other demographic variables with their pretest level of knowledge. The obtained chi square value of the variables such as Age ( $\chi^2 = 5.76$ ,  $P > 0.05$ ), Educational status ( $\chi^2 = 2.15$ ,  $P > 0.05$ ), Occupation ( $\chi^2 = 7.72$ ,  $P > 0.05$ ), Occupation ( $\chi^2 = 3.57$ ,  $P > 0.05$ ), Income ( $\chi^2 = 0.607$ ,  $P > 0.05$ ), Religion ( $\chi^2 = 3.68$ ,  $P > 0.05$ ), Type of family ( $\chi^2 = 0.146$ ,  $P > 0.05$ ) and Source Of Information ( $\chi^2 = 1.99$ ,  $P > 0.05$ ), knowledge about institutional delivery ( $\chi^2 = 4.58$ ,  $P > 0.05$ ). Hence research hypothesis (H2) was accepted and null hypothesis was rejected.

#### 4. Discussion

A report of findings is never sufficient to convey their significance. The meaning that researchers give to results plays a rightful and important role in the report. The discussion section is devoted to a thoughtful and insightful analysis of the finding, leading to a discussion of their clinical and theoretical utility. **Section I: Distribution of respondents according to demographic variables** the demographic data details according to their Age in years depicts that the majority of the respondent 50 % (11) were in the age group between 24-29 years, 26.66 % (10) were in the age group 18-23 years, 16.66 % (8) were in the age group 30-35 years, and 6.66 % (1) were in the age group above 35 years. Percentage distribution of primi gravida mothers in relation to their educational status depicted that majority of the respondent 56.67 % (17) has primary education, 36.67 % (11) has secondary education, 6.67 % (2) has graduation and above, no respondent is illiterate. Percentage distribution of primi gravida mothers in relation to their Occupation depicted that majority of the respondents 60 % (14) are housewife, 20 % (9) are private employee, 13.33 % (4) are private business and 6.67 % (3) are government employee Percentage distribution of primi gravida mothers in relation to their Monthly income that majority of the respondents 33.33 % (12) were have monthly income 5001-10000, 20 % (9) were have monthly income 10001-15000, (8) were have monthly

income less than 5000, and 13.33 % (1) were have monthly income above 15001. Percentage distribution of primi gravida mothers in relation to their Religion depicted that majority of the respondent 63.33 % (19) were Hindu, 16.67 % (05) were Muslim, 10 % (03) were others, and 10 % (03) were Christian. Percentage distribution of primi gravida mothers in relation to their Type of family depicted that majority of respondents 66.67 % (20) were have nuclear family, 33.33 % (10) were have joint family. Percentage distribution of primi gravida mothers in relation to their Source of information shows that majority of the respondents 43.33 % (13) have source of information from radio/television/internet, 33.33 % (10) were have source of information from family members/ neighbor/ friends, 16.67 % (5) have the source of information from magazines/ newspapers/ journal and books and 6.67 % (2) have source of information from health personnel. Percentage distribution of primi gravida mothers in relation to their knowledge about institutional delivery shows that majority of the respondents 56.67 % (17) have knowledge about institutional delivery and 43.33 % (13) have no knowledge about institutional delivery.

#### Section II: Comparison between pretest and posttest knowledge level.

The knowledge of Primi gravida mothers regarding institutional delivery. In the pretest 83.33 % primi gravida mothers had inadequate knowledge; 16.66 % had moderate knowledge and none of the primi gravida mothers had adequate knowledge in pre-test. In post-test 23 (76.66 %) primi gravida mothers had adequate knowledge; 07 (23.33 %) primi gravida mothers had moderate knowledge and none of the primi gravida mothers had inadequate knowledge in post-test.

#### Section 3: Mean, Standard Deviation, and Paired t value of pretest and posttest knowledge scores

The mean pre- test and post test knowledge score regarding institutional delivery. The paired t- test value for institutional delivery is 30.03. It was found to be significant at  $P < 0.05$  level, Hence research hypothesis (H1) is accepted and null hypothesis was rejected. It evidence that the planned teaching program (PTP) is significantly effective on improving the knowledge of primi gravida mothers regarding institutional delivery

#### Table 4: Association between pretest knowledge scores with their demographic variables

The results of chi square analysis presented in table 4 indicates that the demographic variable such as knowledge about institutional delivery shows statistical significant association with the pretest level of knowledge and there was no significant association of other demographic variables with their pretest level of knowledge. The obtained chi square value of the variables such as Age ( $\chi^2 = 5.76$ ,  $P > 0.05$ ), Educational status ( $\chi^2 = 2.15$ ,  $P > 0.05$ ), Occupation ( $\chi^2 = 7.72$ ,  $P > 0.05$ ), Occupation ( $\chi^2 = 3.57$ ,  $P > 0.05$ ), Income ( $\chi^2 = 0.607$ ,  $P > 0.05$ ), Religion ( $\chi^2 = 3.68$ ,  $P > 0.05$ ), Type of family ( $\chi^2 = 0.146$ ,  $P > 0.05$ ) and Source Of Information ( $\chi^2 = 1.99$ ,  $P > 0.05$ ), knowledge about institutional delivery ( $\chi^2 = 4.58$ ,  $P > 0.05$ ). Hence research hypothesis (H2) was accepted and null hypothesis was rejected.

## 5. Summary

The primary aim of the study was “to assess the effectiveness of structured teaching program on knowledge of institutional delivery among primi gravida mothers in selected rural areas, Dehradun.” The conceptual frame work chosen for this study is based on the Health Belief Model. It is one of the most widely used models to explain why people do or do not take preventive health actions. After an extensive review of literature and discussion with the experts a structured knowledge questionnaire was prepared and used to assess the level of knowledge of primi gravida mothers regarding institutional delivery. Reliability of the tool was established by using split half technique which measures the coefficient of internal consistency. The STP was entitled “Institutional delivery”. The STP was prepared to enhance the assessment knowledge of the primi gravida mothers regarding institutional delivery.

## 6. Conclusion

The results show that the “Primi gravida mothers” knowledge level improved after implementation of the structured teaching programme on institutional delivery. The study indicates that the STP is an effective method in improving moderate to adequate level of knowledge regarding health topics to the present day society where much attention is given to health promotion rather than treating the disease after acquiring it.

## 7. Nursing Implication

**Nursing practice** Health education is an important tool of healthcare agency. It is one of the most cost effective Interventions. It is concerned with promoting health as well as reducing stress. The extended and expanded role of professional nurse is emphasis more about the preventive and promotive aspects of the health. Primary prevention is one of the important components of obstetrical and gynecological nursing. Nurses have a major role in preventive aspects than the curative aspect. One of the methods of health promotion is by health education. A nurse can play an important role in improving the health of mother and child. She should create awareness among people that pregnancies which are too early or too late in a woman's reproductive life or too closely institutional care or unwanted carry higher health risks. The nurse has to motivate the people to adopt appropriate institutional care to maintain optimal delivery care by informing them about the health magazines, books, and health-related articles available. In the hospital and community the nurse will have direct contact with people. This opportunity should be utilized by the nurse promptly by giving prompt and adequate information to the public on institutional delivery by the use of electronic media, AV aids, and health education materials.

**Nursing education** The present health care delivery system is emphasis more on preventive rather than the curative aspect. The study also implies that health personnel have to be properly trained on how to teach public regarding healthcare The holistic health care approach should be emphasized during the training period of nursing students.

Nursing students should be made aware of the importance of educating the public regarding various aspects of health. The nursing personnel should be given in-service education to upgrade their knowledge. Student nurses can impart the knowledge to the public regarding delivery by various methods of teaching like role play, puppet show, and street play to create awareness.

**Nursing administration** India is a developing country and over population is a major problem in our country. So the administrative departments of nursing at the institutional, local, state and national levels should focus their attention to educate the public regarding this commonly faced challenge. The nurse administrator should plan and organize continuing education program for ANM/JHA (F) to upgrade the knowledge and to motivate them in conducting teaching programs on institutional delivery and method of ANC, PNC & Delivery care in community. She should be able to plan and organize programs taking into consideration the cost effectiveness to carry out successful educational programs.

**Nursing research** The emphasis on research and clinical status is to improve the quality of nursing care. Nurses needs to engage in multidisciplinary research so that it will help to improve the knowledge and many health problems can be solved. They should take initiative to conduct research on the institutional delivery and its importance

## 8. Recommendations

- On the basis of the findings of the study following recommendations have been made:
- A similar study can be replicated on a large sample to generalize the findings.
- A quasi-experimental study can be undertaken with a control group for effective comparison of the result
- A study can be conducted by including additional demographic variables.
- A comparative study can be conducted between rural and urban settings.
- A study can be carried out to evaluate the efficiency of various teaching strategies like SIM, pamphlets, leaflets and computer-assisted instruction on institutional delivery.

## References

- [1] K. K. Community health nursing. 1st edition, Kumar publishing house, Jabalpur. 2005; p.345-7.
- [2] Ingle. G.K, Nath A. Reaching out to the unreached health care for the poor in Indian Journal of community Medicine. 31; (2); 2006.
- [3] Park. K. Preventive and social medicine.17 th edition, Banarsidas publishers, Jabalpur, 2006.
- [4] John. D, Cathrine. T, Macarthur, population and reproductive health India delivers new approaches to women’s health. Mac Arthur News letter: 2007.
- [5] RHS Bulletin Ministry of health and family welfare services, Govt. of India. 2006.
- [6] Anthony Costella, David Osrin, Dharma Manandhar, Reducing maternal and neonatal mortality in the poorest communities. British medical journal; 329; (12);2004.

- [7] Armida Fernandez, Jeyashree Monkar, Urban slum specific issues in neonatal survival,
- [8] Indian paediatrics; 40; (23);2003.
- [9] Imitiaz Ahmed Bhat, Population research center, 2006.
- [10] Bhadra kamalasanan, Need to Promote Institutional Deliveries in India. Available from <http://mohfw.nic.in/NRHM/PRG-RA-Reports/Jammu, 2012-05-29>
- [11] Sudha Balakrishnan, Maternal audit project taken up in several districts one world net. Available from: <http://www.southasia.oneworld.net/article/view/146484/1/2269>.
- [12] Vincent De Brouwere, Vincent rene Tonglet. Strategies for reducing maternal mortality in developing countries. Journal of Tropical medicine and international health, 3; (23); 1998.
- [13] Times of India. A report on maternal mortality in India 2007; Oct; 16;1;16.
- [14] Sample registration system, Maternal mortality in India 1997-2003 trends causes and risk factors 1991-2003;24.