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A study to evaluate the effectiveness of planned teaching programme on knowledge of 3rd year GNM students on pharmacological and non-pharmacological management of labour pain in selected schools of nursing, Dharwad district, Karnataka

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Abstract
Background of the study: Labour pain is the result of many complex interactions. Labour pain is among the worst imaginable pain that women can experience during their childbearing years. Labour pain management is not only a crucial concern for future mothers but also a great challenge in modern medicine because most of the parturient expect to obtain effective pain relief during delivery.

Objective
1. To assess the knowledge of 3rd year GNM students on pharmacological and non – pharmacological management of labour pain.
2. To evaluate the effectiveness of the planned teaching programme on pharmacological and non – pharmacological management of labour pain on 3rd year GNM students in terms of gain in the knowledge scores.
3. To find an association between pre-test knowledge scores and selected socio-demographic variables.

Methodology: In the present study a Quazi experimental evaluative approach was selected, one group pre-test and post-test design was adopted. The conceptual frame work used for the study was based on Imogene King's Goal attainment theory. Sample size was 60 3rd year GNM students. The sample was selected by purposive sampling technique. Data was collected by structured knowledge questionnaire and obtained data were analyzed and interpreted in the light of the objectives, using both descriptive and inferential statistics.

Result: Overall result of the study revealed that the level of knowledge of planned teaching programme on Pharmacological and Non-Pharmacological management of Labour Pain in pre-test reveals that all the 60 (100%) subjects had poor, whereas in post-test majority of the subjects, 58(96.66%) had good knowledge and 2(3.33%) had average knowledge. There was a significant gain in knowledge of 3rd year GNM who were exposed to the planned teaching programme.

The calculated paired 't' value (Tcal=50.55) was greater than the tabulated value. Hence, H1 was accepted. This indicated that the gain in knowledge score was statistically at 0.001 level of significance. There was no statistical association between selected socio-demographic variables and their knowledge scores at 0.05 level of significance.

Conclusion: The study concluded that Planned Teaching Programme was more effective for 3rd year GNM students to increase and update their knowledge regarding Pharmacological and Non – Pharmacological management of Labour Pain.

Keywords: Effectiveness, planned teaching programme, knowledge, 3rd-year GNM students, pharmacological and non - pharmacological, management of labour pain

Introduction
"The goal of education is the advancement of knowledge and dissemination of truth"

-John Fitzgerald Kennedy

Labour is one of the most beautiful episodes in a mother's life, associated with joy, happiness, and celebration. Labour is one of the major events in the life of a woman. The most common childbirth method is vaginal delivery. The experience of childbirth is a

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subjective and multidimensional issue and each woman passes through it in a different way. A positive childbirth experience is about more than the birth of a healthy baby.

Pain during labour is a physiological phenomenon. Pain is expected during labour and is seen as part of the natural labor process. Labour pain is among the worst imaginable pain that women can experience during their childbearing years.

However, delivery is also related to negative emotions like fear, anxiety, stress and a low sense of security which causes an increase in release of catecholamine and cortisol. So women often mention that because of their anxiety, they would prefer a caesarean section rather than a natural delivery.

Labour pain management is not only a crucial concern for future mothers but also a great challenge in modern medicine because most of the parturient expect to obtain effective pain relief during delivery.

The knowledge about these labour pain management practices is good in developed countries but poor in developing countries because pregnant women in developing countries are often unaware that such pain treatment is available, which leads to low demand for the service.

Need for the study
Labour pain is the result of many complex interactions. It is an emotional experience and involves physiological and psychological mechanisms. Hence creating intense worries, panic and depression in the woman during labour. It is noted that about 75% of childbirths worldwide are delivered with the assistance of midwives/nurses. The goal in obstetrics practice during labour is to choose a method that will reduce the pain to a level at which the parturient is able to cope with it and simultaneously give the parturient the possibility to participate in the birth experience. Nurses and Midwives play an essential role in the management of labour pain. Studies on students' knowledge of labour pain management are limited. Newly graduated midwives can have an effective role in reducing labour pain management and in rising awareness of mothers.

Statement of problems
"A study to evaluate the effectiveness of planned teaching programme on knowledge of 3rd year GNM students on pharmacological and non-pharmacological management of labour pain in selected schools of nursing, Dharwad District, Karnataka".

Objective of the study
1. To assess the knowledge of 3rd year GNM students on pharmacological and non-pharmacological management of labour pain.
2. To evaluate the effectiveness of the planned teaching programme on pharmacological and non – pharmacological management of labour pain on 3rd year GNM students in terms of gain in the knowledge scores.
3. To find an association between pre-test knowledge scores and selected socio-demographic variables.

Hypothesis
H1: The mean post-test knowledge scores of the 3rd year GNM students on pharmacological and non-

pharmacological management of labour pain will be significantly higher than their mean pre-test knowledge scores as measured by structured knowledge questionnaire at 0.05 level of significance.

H2: There will be a significant association between pre-test knowledge scores of 3rd year GNM students on pharmacological and non-pharmacological management of labour pain and their socio-demographic variable at 0.05 level of significance.

Assumptions
1. The 3rd year GNM students have some knowledge regarding pharmacological and non-pharmacological management of labour pain.
2. The planned teaching programme (PTP) will help the 3rd year GNM students to update their knowledge and enable them to provide efficient Nursing care to the mothers during labour.

Delimitations
This study is delimited to the 3rd year GNM students of Shakuntala College of Nursing, Hubli Institute of Nursing Science and Kle's Hubli Institute of Nursing Sciences of Hubballi, Karnataka.

Material and methods research approach: Evaluative Research Approach

Research Design: Quasi-experimental: pre-test and post-test with no control group research design.

Research settings
The study was conducted in three settings
1. Shakuntala Institute of Nursing Education, Hubballi
2. Vigneshwara Institute of Nursing Science, Hubballi
3. Kle's Hubli Institute of Nursing Science, Hubballi

Sample size and sample: 60 3rd year GNM students were selected

Sampling technique: Non-probability convenient sampling

Variables
Independent variable: Planned teaching programme
Dependent variable: Knowledge of the student nurses regarding Pharmacological and Non Pharmacological management of Labor Pain.

Criteria for selection of samples inclusion criteria: 3rd-year GNM students who are undergoing a 3-year GNM course.

Exclusion criteria: 3-year GNM students
Who are absent at the time of data collecting?

Result
Demographic data was analysed using frequency and percentage. Frequencies, percentage, Mean, Medium, Standard deviation and Range were used to determine the knowledge scores. The 't' value was computed to show the effectiveness of the Planned Teaching Programme and a chi-square test was done to determine the association between the pre-test knowledge scores of subjects and

selected socio-demographic variables.

Section I: Distribution of sample characteristics according to socio-demographic variables.

- The majority of the respondents 41 (68.33%) were between 20-21 years of age, 16 (26.66%) between 22-23 years of age and only 3 (5%) respondents were between 24-25 years of age and female respondents are about 46 (76.66%) who were majority and male respondents were 14 (17.33%).
- Religion shows that majority of the respondents 48 (80%) were Hindu, 7(11.66%) were Christian and 5 (8.33%) of the respondents were Muslims.
- Area of Residents shows that majority of the respondents 33(55%) belong to Urban areas and 27(45%) of the respondents belong to Rural areas.
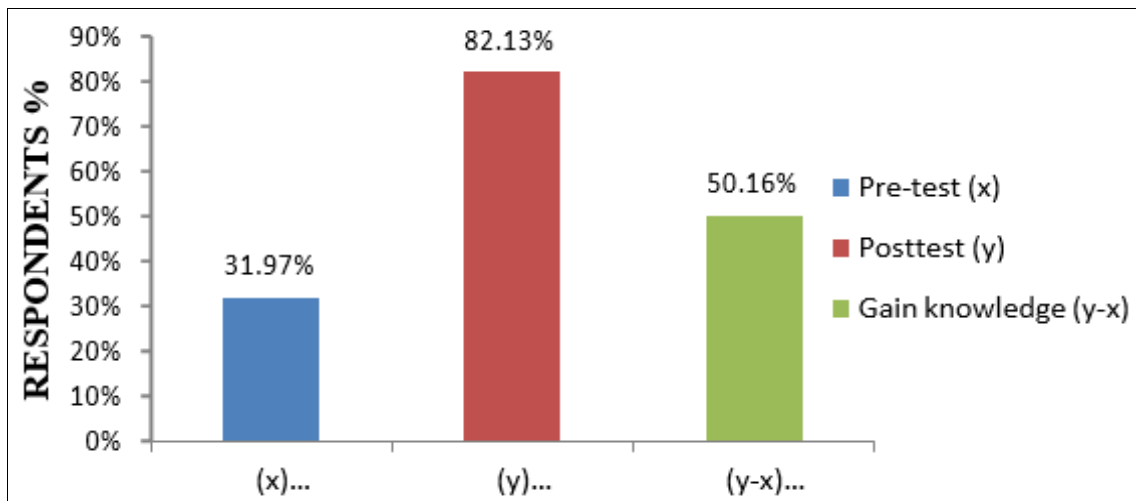- Type of Family shows the majority of the respondents 42(70%) belong to Nuclear Families and 18(30%) of the respondents belong to Joint Families.
- Marital Status shows that the majority of the respondents 51 (85%) were Unmarried and 9(15%) of the respondents were Married.
- Source of Information, majority of the respondents 27(45%) received information in a Clinical setting, 13(21.66%) never received any information, 12(20%) received information from Books/ Journals and 8(13.33%) received information from Mass media/ Internet.

Section II: Analysis and Interpretation of knowledge scores of subjects

Table 1: Analysis and interpretation of knowledge scores of 3rd year GNM students on pharmacological and non-pharmacological management of labour pain. n=60

Items	Total score	Mean % of knowledge score of subjects		
		Pre-test (x)	Post-test (y)	Gain knowledge (y-x)
Structured knowledge questionnaire	1920	31.97	82.13	50.16

Table No 1: reveals that there was a 50.16% gain in knowledge after the administration of the Planned Teaching Programme.

Graph 1: The column graph represents the mean percentage gain n knowledge scores of subjects according to their knowledge scores

Table No 2: Mean, median, Standard deviation and Range of knowledge scores of subjects on pharmacological and non-pharmacological management of labour pain. n=60

Area of analysis	Mean	Median	Standard deviation	Range
Pre-test (x)	10.23	10	2.346	11
Post-test (y)	26.28	26	1.474	8
Difference (y-x)	16.05	16	0.87	03

Table No 2: reveals that mean knowledge score in the pre-test was 10.23, median is 10, standard deviation is 2.346, range is 11 and whe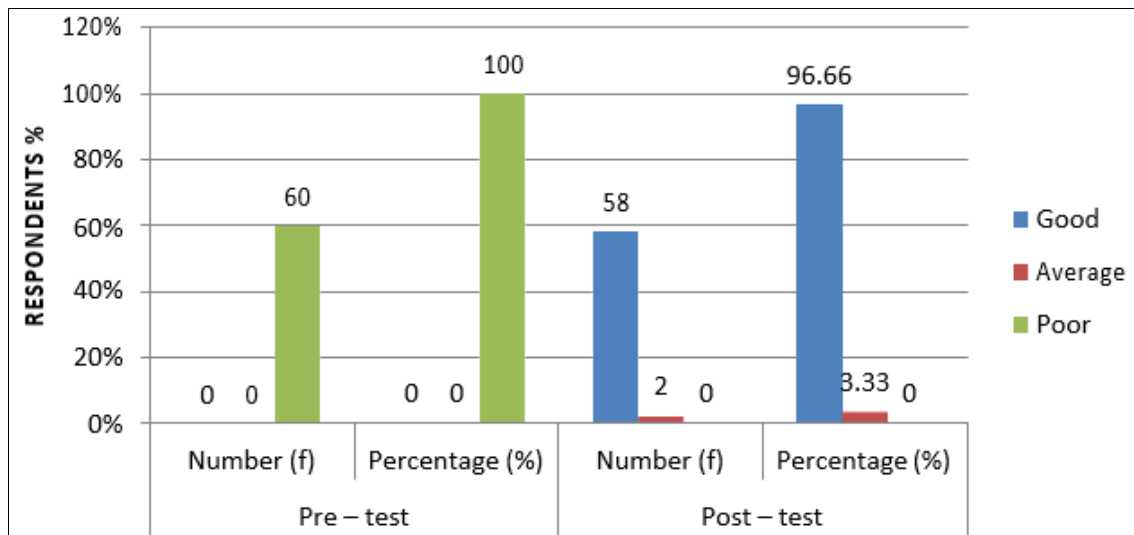reas in post-test mean knowledge score is 26.28, median is 26, standard deviation is 1.474, range is 08. Therefore, overall mean knowledge score is 16.05, median is 16, standard deviation is 0.87 and range is 03.

Table 3: Frequency and percentage distribution of knowledge scores of subjects on pharmacological and non-pharmacological management of labour pain

Level of Knowledge	Range of scores	Pre-test		Post-test	
		Number (f)	Percentage (%)	Number (f)	Percentage (%)
Good	24-32	00	0.0	58	96.66
Average	16-23	00	0.0	02	3.33
Poor	0-15	60	100	00	0.0
Overall		60	100	60	100

Table No 3: shows the level of knowledge regarding pharmacological and non-pharmacological management of labour pain. In pre-test all the 60 (100%) subjects had poor knowledge, where as in post-test 58 (96.66%) subjects had good knowledge and 02 (3.33%) had average knowledge.

Graph 2: The column graph represents percentage distribution of knowledge scores of subjects on pharmacological and non-pharmacological management of labour pain

Section III: Testing of hypothesis for evaluation of planned teaching programme

Table 4: Mean difference, Standard Error of difference (SED) and paired 't' values of knowledge scores of subjects on pharmacological and non-pharmacological management of labour pain. n=60

Mean difference (d)	Standard error of difference (SED)	Paired 't' values	
		Calculated	Tabulated
16.050	2.459	50.551	3.551

Table No 4: Reveals that the calculated paired 't' value (tcal = 50.551) is greater than the tabulated value (ttab = 3.551) at 0.001 level of significance. Therefore it is highly significant and H1 is accepted. This indicates that the gain in knowledge score was statistically significant at 0.05 level of significance. Therefore, the Planned Teaching programme was effective in terms of gain in knowledge scores of the subjects.

Discussion
The findings of the present study have revealed that all 60 (100%) respondents had poor knowledge in the pre-test. After the administration of the planned teaching programme majority of the respondents, 58(96.66%) had good knowledge and 2(3.33%) of them had average knowledge in the post-test on pharmacological and non-pharmacological management of labour pain. There was a significant gain in knowledge i.e. 50.16% among 3rd year GNM students who were exposed to the Planned Teaching programme. The calculated paired 't' value (tcal = 50.551) is greater than the tabulated value (ttab = 3.551) at a 0.001 level of significance. Therefore it is highly significant and H1 is accepted. This indicates that the gain in knowledge score was statistically significant at 0.05 level of significance.

Conclusion
Based on findings of the study, the following conclusions were drawn.
1. The overall pre-test knowledge scores of the subjects were poor.
2. The post-test knowledge score of the subjects after the administration of the Planned Teaching programme was significantly higher than the pre-test knowledge scores.
3. Post-test knowledge results showed that the gain in knowledge score of subjects was statistically at 0.05 levels.
4. Thus it is concluded that Planned Teaching Programme was effective in terms of gain in knowledge score of the subjects.

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Author's Contribution

Conflict of Interest

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