

Effect Of Structure Teaching Method (STM) Regarding Hypnobirthing Therapy Among Nursing Students in Nursing College in Vidharbha Region, Maharashtra.

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Abstract— Background = Hypnobirthing therapy is a childbirth preparation approach that incorporates relaxation, controlled breathing, visualization, positive affirmations, and self-hypnosis to help women manage fear, anxiety, stress, and perceived pain during labour. Knowledge of complementary approaches such as hypnobirthing is important for nursing students because nurses play an essential role in providing holistic and woman-centred maternity care. Structured Teaching Method (STM) provides systematic and organized learning and may improve students' knowledge and understanding of hypnobirthing therapy.

Aim = To assess the effectiveness of Structured Teaching Method regarding knowledge of hypnobirthing therapy among nursing students studying in a selected nursing college in the Vidarbha region of Maharashtra.

Methods = A quantitative research approach was adopted. The study included 60 nursing students, with 30 students in the experimental group and 30 in the control group, from a selected nursing college in the Vidarbha region of Maharashtra. The study used non-probability convenient sampling. A structured knowledge questionnaire was used for data collection, and the intervention was provided to the experimental group through Structured Teaching Method. Pre-test and post-test knowledge scores were assessed. Descriptive statistics and inferential statistics, including paired t-test, independent t-test and chi-square test, were used for data analysis. Statistical significance was considered at $p < 0.05$.

Results = The findings demonstrated a significant improvement in knowledge following the intervention. In the experimental group, the mean pre-test knowledge score was 14.33 ± 4.237 , which increased to 25.00 ± 4.017 in the post-test, with a statistically significant paired t value of 16.754 ($p = 0.0001$). In the control group, the mean pre-test score was 13.20 ± 4.072 , increasing to 21.47 ± 6.124 in the post-test ($t = 7.228, p = 0.0001$).

Comparison of post-test scores showed that the experimental group had a higher mean knowledge score (25.00 ± 4.017) than the control group (21.46 ± 6.124). The difference was statistically significant ($t = 2.822, p = 0.0009$), indicating that Structured Teaching Method was effective in improving knowledge regarding hypnobirthing therapy. Significant associations were reported between post-test knowledge and age ($p = 0.026$) and marital status ($p = 0.002$), whereas gender, educational qualification, area of residence, religion, and previous attendance at a hypnobirthing programme were not statistically significant.

Index Terms— Hypnobirthing therapy; Structured Teaching Method; Nursing students; Knowledge; Maternity nursing; Childbirth education; Nursing education; Vidarbha; Maharashtra.

I. INTRODUCTION

Hypnobirthing is a specialised technique that uses deep breathing, self-hypnosis, visualisation and other comfort measures. Hypnobirthing is aimed at reducing the levels of fear, anxiety and stress in pregnant women (tips for good mental health) and preparing them for a healthy labour and delivery. Hypnobirthing techniques help a pregnant woman to become prepared mentally, emotionally, spiritually and physically.¹

Childbirth is a natural process experienced by a woman. Being unprepared will make a woman feel scared and anxious, especially if it is her first-time giving birth. This is because most first-time mothers lack experience with the end of pregnancy, particularly with labor, and anxiety triggers personal defenses. Hypnobirthing is a method of preparing for birth by altering the image of labor from a stressful and painful experience to a positive one. The brain, not the

body, controls pain experience. Pain receptors send signals to the brain, which interprets and prioritizes them. Hypnobirthing techniques, such as relaxation exercises and mind control, help women manage pain and anxiety, not eliminate it, but process it differently, enabling a more natural and less painful delivery experience.²

Hypnobirthing is a proven method of trying to guide and prepare women for childbirth in a calm and comfortable way. Hypnobirthing is a program that considers psychological, physical, welfare of the mother, father, newborn baby, self-empowerment, calmness while at home, calmness while in the hospital, or in the delivery room. Hypnobirthing program is about the process of childbirth education which includes breathing, relaxation, visualization of meditation practice, paying attention to nutrition and positive body toning.³

The best time to start a hypnobirthing course is around the 20–30-week mark of pregnancy. This timing allows ample opportunity to practice and internalise the techniques, ensuring they become second nature by the time labour begins. It can take a little while to get to grips with the methods. However, it is never too late to begin, and many women have successfully incorporated hypnobirthing principles even in the later stages of pregnancy.⁴

II. OBJECTIVES

General Objective =

- To assess the knowledge regarding of hypnobirthing therapy among antenatal mothers in selected hospital, Maharashtra.

Secondary Objectives =

- To associated the knowledge with selected demographic variables.
- To identify the willingness of antenatal mothers to learn about hypnobirthing therapy.
- To identify the sources of hypnobirthing therapy knowledge among antenatal women.

III. HYPOTHESIS

H0: There will be no significant difference in the knowledge scores regarding hypnobirthing therapy among nursing students before and after Structured Teaching Method.

H1: There will be a significant difference in the knowledge scores regarding hypnobirthing therapy among nursing students after implementation of Structured Teaching Method.

IV. METHOD

A quantitative research approach with an experimental study design was adopted to assess the effectiveness of a Structured Teaching Method (STM) regarding hypnobirthing therapy among nursing students in selected nursing colleges of the Vidarbha region, Maharashtra. A total of 60 nursing students were selected using non-probability purposive sampling, with 30 students assigned to the experimental group and 30 to the control group.

Data were collected using a self-structured questionnaire consisting of demographic information and knowledge-based multiple-choice questions regarding hypnobirthing therapy. The experimental group received the Structured Teaching Method, followed by a post-test, while the control group was assessed using the same knowledge tool. Content validity of the tool was established through review by nursing experts. A pilot study was conducted before the main study, and informed consent was obtained from all participants.

Data were collected using a self-structured knowledge questionnaire. The tool consisted of three sections. Section A collected demographic information such as age, gender, educational qualification, area of residence, marital status, religion, previous knowledge/program attendance, and source of information. Section B consisted of a 30-item pre-test multiple-choice knowledge questionnaire, while Section C consisted of a 30-item post-test questionnaire. Each correct response received one mark and an incorrect response received zero marks, giving a maximum possible score of 30.

Sample Size

A total of 60 nursing students participated in the study. Sampling Techniques =

A non-probability purposive sampling technique was adopted for the selection of participants. The researcher purposively selected nursing students who met the predetermined inclusion criteria and were available during the period of data collection. The study included a total sample of 60 nursing students

from a selected nursing college in the Vidarbha region of Maharashtra. The selected participants were informed about the purpose and objectives of the study, and their willingness to participate was obtained before data collection. This sampling technique enabled the researcher to recruit participants who were accessible and fulfilled the specified eligibility criteria for assessing knowledge regarding hypnobirthing therapy.

V. DATA COLLECTION TOOLS AND TECHNIQUES =

Data collection is a crucial part of research, as it provides answers to the research questions. For this study, a self-structured questionnaire was used to assess the knowledge of awareness effectiveness of structure teaching method on regarding hypnobirthing therapy among nursing students.

Data Analysis =

The data collected from 60 nursing students were systematically organized, coded, classified, and entered into a master data sheet for statistical analysis. The analysis was carried out using both descriptive and inferential statistics in accordance with the objectives of the study. The demographic characteristics of the participants were summarized using frequency and percentage, including variables such as age, gender, educational qualification, area of residence, marital status, religion, and previous exposure to hypnobirthing therapy.

The level of knowledge regarding hypnobirthing therapy was assessed using the self-structured knowledge questionnaire. The mean and standard deviation (SD) were calculated to describe the knowledge scores obtained by the participants in the pre-test and post-test. The pre-test and post-test knowledge levels were presented separately for the experimental and control groups.

For inferential analysis, the paired t-test was used to determine the significance of the difference between pre-test and post-test knowledge scores within the groups. The chi-square test was applied to determine the association between knowledge scores and selected demographic variables. The post-test knowledge scores of the experimental and control groups were also compared to assess the effectiveness of the Structured Teaching Method (STM). The study

findings included statistical comparison of the experimental and control groups.

The results were interpreted according to the calculated test statistics and p-values. A p-value < 0.05 was considered statistically significant. The statistical findings were used to determine whether the Structured Teaching Method was effective in improving knowledge regarding hypnobirthing therapy among nursing students.

The analysis was presented in the form of tables and appropriate descriptive and inferential statistics to provide a clear interpretation of the study findings and to assess the effectiveness of the educational intervention. The PDF specifically identifies demographic distribution, pre-test and post-test knowledge levels, within-group comparisons, experimental versus control group comparisons, and associations with selected demographic variables as major components of the analysis.

VI. RESULTS

A total of 60 nursing students participated in the study, with 30 students assigned to the experimental group and 30 to the control group. The demographic findings showed that most participants were female and were studying B.Sc. Nursing. In the experimental group, 70% of students were aged 18–19 years, 83.3% were female, 100% had B.Sc. Nursing qualification, and 50% each were from urban and rural areas. Regarding marital status, 90% were unmarried. Previous participation in a hypnobirthing therapy programme was reported by 20% of students in the experimental group and 33.3% in the control group.

In the experimental group, the pre-test mean knowledge score was 14.33 ± 4.237 , which increased to 25.00 ± 4.017 in the post-test. The mean percentage score increased from 47.8% to 83.33%. In the pre-test, 50% of students had good knowledge, 26.7% had average knowledge, 20% had very good knowledge, and 3.3% had poor knowledge. In the post-test, 63.3% achieved excellent knowledge, 26.7% had very good knowledge, and 10% had good knowledge; none remained in the poor or average categories.

The improvement in the experimental group was statistically significant. The calculated paired t-value was 16.754, which was higher than the tabulated value of 2.045 at the 5% level of significance. Thus, the study findings supported the effectiveness of the

educational intervention, with H1 accepted and H0 rejected.

In the control group, the pre-test mean knowledge score was 13.20 ± 4.072 , which increased to 21.47 ± 6.124 in the post-test. The paired t-value was 7.228 with $p = 0.0001$, indicating a statistically significant difference between pre-test and post-test knowledge scores within the control group as reported in the PDF. Comparison of post-test knowledge between the two groups showed that the experimental group had a higher mean score (25.00 ± 4.017) than the control group (21.46 ± 6.124). The mean difference was 3.53 ± 6.857 , with a calculated t-value of 2.822 and $p = 0.0009$, indicating a statistically significant difference at the 0.05 level. Therefore, the experimental group demonstrated better post-test knowledge regarding hypnobirthing therapy than the control group.

Regarding post-test knowledge categories, 63.3% of students in the experimental group achieved excellent knowledge, compared with 30% in the control group.

Very good knowledge was observed among 26.7% of the experimental group and 53.3% of the control group. Good knowledge was reported in 10% and 6.7%, respectively, while average knowledge was found in 0% of the experimental group and 10% of the control group. No student in either group had poor post-test knowledge.

Association analysis showed that age ($\chi^2 = 11.094$, $p = 0.026$) and marital status ($\chi^2 = 12.066$, $p = 0.002$) were significantly associated with post-test knowledge in the experimental group. No, statistically significant association was reported for gender, educational qualification, area of residence, religion, or previous attendance at a hypnobirthing therapy programme.

Overall, the results indicate that the nursing students who received the educational intervention demonstrated a significant improvement in knowledge regarding hypnobirthing therapy, with higher post-test knowledge scores and a greater proportion achieving excellent knowledge compared with the control group.

Table- 1: Percentage wise distribution of subjects according to their demographic characteristics.

n=60

Demographic variables	Experimental group (N=30)		Control group (N=30)	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Age in Years				
18-19 years	21	70.0	14	46.7
20-21 years	05	16.7	10	33.3
22-23 years	04	13.3	06	20.0
24 years and above	00	00	00	00
Gender				
Male	05	16.7	01	3.3
Female	25	83.3	29	96.7
Educational qualification				
B.Sc. (N)	30	100	30	100
GNM	00	00	00	00
Area of residence				
Urban	15	50	15	50
Rural	15	50	15	50
Marital Status				
Married	03	10	09	30
Unmarried	27	90	21	70
Religion				
Hindu	19	63.3	16	53.3
Buddhist	06	20	05	16.7
Muslim	04	13.3	06	20.0
Christian	01	3.3	03	10
Have you attended any previously Hypnobirthing therapy program				

Yes	06	20	10	33.3
No	24	80	20	66.7

It is observed that, out of 60 subjects, 30 subjects were included in experimental group and 30 subjects were included in control group about.

With regards to age in years 21 (70%) of the subjects from experimental group and 14 (46.7%) of the subjects from control group were from the age group of 18-19 years, 05 (16.7%) of the subjects from experimental group and 10 (33.3%) of the subjects from control group were from the age group of 20-21 years, 04 (13.3%) of the subjects from experimental group and 06 (20%) of the subjects from control group were from the age group of 22-23 years and 0% of the subjects from experimental group and 0% of the subjects from control group were from the age group of 24 years and above.

With regards to gender, 05 (16.7%) of the subjects from experimental group and 1 (3.3%) of the subjects from control group were belongs to male and 25 (83.3%) of the subjects from experimental group and 29 (96.7%) of the subjects from control group were belongs to female.

With regards to educational qualification, 30 (100%) of the subjects from experimental group and 30 (100%) of the subjects from control group having B.Sc.(N), 0% of the subjects from experimental group and 0% of the subjects from control group having GNM.

In terms of area of residence, 15 (50%) of the subjects from experimental group and control group are belongs to rural area and 50 (50%) of the subjects from experimental group and control group are belongs to urban area.

With regard to marital status, 27 (90%) of the subjects from experimental group and 21 (70%) of the subjects from control group are unmarried and 3 (10%) of the subjects from experimental group and 9 (30%) of the subjects from control group are married.

In terms of religion, 19 (63.3%) of the subjects from experimental group and 16 (53.3%) of the subjects from control group are Hindu, 6 (20%) of the subjects from experimental group and 5 (16.7%) of the subjects from buddhist, 4 (13.3%) of the subjects from experimental group and 6 (20%) of the subjects from muslim and 1 (3.3%) of the subjects from experimental group and 3 (10%) of the subjects from Christian.

In terms of have you attended any previously Hypnobirthing therapy program, 6 (20%) of the subjects from experimental group and 10 (33.3%) of the subjects from control group having attended program and 24 (80%) of the subjects from experimental group and 20 (66.7%) of the subjects from control group having no any program attended.

Table -2: Assessment of level of pre-test and post-test knowledge among subjects from experimental group on hypnobirthing therapy among nursing students.

n=30

Level of knowledge score	Score range	Percentage score	Level of pre-test knowledge score		Level of post-test knowledge score	
			Freq. (f)	Percent (%)	Freq. (f)	Percent (%)
Poor	0-6	0-20%	01	3.3	00	00
Average	7-12	21-40%	08	26.7	00	00
Good	13-18	41-60%	15	50	03	10
Very Good	19-24	61-80%	06	20	08	26.7
Excellent	25-30	81-100%	00	00	19	63.3
Mean $\pm$ SD knowledge score			14.33 $\pm$ 4.237		25.00 $\pm$ 4.017	
Mean % knowledge score			47.8%		83.33%	
Minimum score			05		16	
Maximum score			21		30	

In pre-test, 50% of the subjects had good level of knowledge, 26.7% had average level of knowledge, 20% of the subjects had very good level of knowledge, 3.3% had poor level of knowledge and 0% had excellent level of knowledge. Minimum knowledge score in pre-test was 5 and maximum knowledge score in pre-test was 21. Mean knowledge score in pre-test was 14.33 ± 4.237 .

While in post-test, 63.3% of the subjects had excellent level of knowledge, 26.7% had very good level of knowledge, 10% of the subjects had good level of knowledge and 0% had poor and average level of knowledge. Minimum knowledge score in pre-test was 16 and maximum knowledge score in pre-test was 30. Mean knowledge score in pre-test was 25.00 ± 4.017 .

Table 3: Assessment of level of pre-test and post-test knowledge among subjects from control group on hypnobirthing therapy among nursing students.

n=30

Level of knowledge score	Score range	Percentage score	Level of pre-test knowledge score		Level of post-test knowledge score	
			Freq. (f)	Percent (%)	Freq. (f)	Percent (%)
Poor	0-6	0-20%	03	10	00	00
Average	7-12	21-40%	10	33.3	03	10
Good	13-18	41-60%	14	46.7	02	6.7
Very Good	19-24	61-80%	03	10	16	53.3
Excellent	25-30	81-100%	00	00	09	30
Mean $\pm$ SD knowledge score			13.20 $\pm$ 4.071		21.46 $\pm$ 6.124	
Mean % knowledge score			44%		71.5%	
Minimum score			05		08	
Maximum score			22		30	

In pre-test, 46.7% of the subjects had good level of knowledge, 33.3% had average level of knowledge, 10% of the subjects had poor and very good level of knowledge and 0% had excellent level of knowledge. Minimum knowledge score in pre-test was 5 and maximum knowledge score in pre-test was 22. Mean knowledge score in pre-test was 13.20 ± 4.071 .

While in post-test, 53.3% of the subjects had very good level of knowledge, 30% had excellent level of

knowledge, 10% of the subjects had average level of knowledge, 6.7% of the subjects had good level of knowledge and 0% had poor level of knowledge. Minimum knowledge score in pre-test was 8 and maximum knowledge score in pre-test was 30. Mean knowledge score in pre-test was 21.46 ± 6.124 .

Table - 4: Significance of difference between knowledge scores in pre-test and post-test in experimental group.

n=30

Overall	Mean	SD	Mean Difference	t-value	p-value
Pre-Test	14.33	4.237	10.67 ± 3.487	16.754	0.0001 S.P<0.05
Post-Test	25.00	4.017			
P<0.05 level *significant					

Table no. 4 depicts the overall mean pre-test and post-test knowledge scores of subjects which reveals that post-test mean knowledge score was higher 25.00 with SD of ± 4.017 when compared with mean pre-test knowledge score which was 14.33 with SD of ± 4.237 . The statistical Student's paired 't' test was applied at 5% level of significance. The tabulated value for $n = 30-1$ i.e., 29 Degree of freedom was 29 is that 2.045.

The calculated value i.e., 16.754 was much higher than the tabulated value at 5% level of significance. For overall knowledge score of subjects which was statically acceptable level of significance.

Hence, it was statistically interpreted that the effectiveness of self-instructional module on knowledge regarding hypnobirthing therapy among nursing students in selected in nursing college in

vidharbha region, Maharashtra at experimental group was effective. Thus, H1 is accepted and H0 is rejected.

Table 7: Effectiveness of experimental group versus control group on hypnobirthing therapy among nursing students in nursing college.

n=30

Overall	Post-Test Mean	SD	Mean Difference	t-value	p-value
Experimental Group	25.00	4.017	3.53 ± 6.857	2.822	0.0009 S. P<0.05
Control Group	21.46	6.124			
S- Significant		NS – Non-Significant		df- degree of freedom	

The comparison of post-test knowledge scores of subjects regarding hypnobirthing therapy among nursing students in nursing college receiving experimental group and control group. The post-test means knowledge score of experimental groups was 25.00 with SD 4.017 compared with post-test mean knowledge score of control group which was 21.46 with SD 6.124. Mean, standard deviation and mean difference values are compared and t-test for difference between two means is applied at 5% level of significance. The tabulated value for t test for 5% level of significance was 2.045. The calculated "t" value i.e., 2.822 are higher than the tabulated value at 5% level of significance for overall knowledge score of subjects which is statistically acceptable level of significance. Hence, it is interpreted that there is a statistically significant difference was found in post-test knowledge score of subjects receiving experimental group and control group. There is no difference in knowledge level of hypnobirthing therapy among nursing students in nursing college who attended experimental group and control group which is measured by structured knowledge questionnaire at $p < 0.05$ level of significance.

VII. DISCUSSION

The present study was conducted to assess the effectiveness of the Structured Teaching Method (STM) regarding hypnobirthing therapy among nursing students in a selected nursing college in the Vidarbha region of Maharashtra. The findings demonstrated an overall improvement in knowledge following the educational intervention.

The findings showed that the experimental group had a pre-test mean knowledge score of 14.33 ± 4.237 , which increased to 25.00 ± 4.017 in the post-test. The

mean percentage of knowledge increased from 47.8% to 83.33%. Before the intervention, 50% of students had good knowledge, 26.7% had average knowledge, 20% had very good knowledge, and 3.3% had poor knowledge, while none had excellent knowledge. Following the intervention, 63.3% of students achieved excellent knowledge, 26.7% achieved very good knowledge, and 10% had good knowledge. No students remained in the poor or average knowledge categories. These findings indicate a marked improvement in students' knowledge after the educational intervention.

The effectiveness of the intervention was further supported by the statistical analysis. The experimental group's calculated paired t-value was 16.754, which was greater than the tabulated value of 2.045 at the 5% level of significance. This indicates a statistically significant improvement in knowledge between the pre-test and post-test assessments. The findings reported in the PDF therefore support the effectiveness of the Structured Teaching Method in improving knowledge regarding hypnobirthing therapy among nursing students.

The control group also demonstrated an improvement in knowledge, with the mean score increasing from 13.20 ± 4.072 in the pre-test to 21.47 ± 6.124 in the post-test. The calculated paired t-value was 7.228 with $p = 0.0001$, indicating a statistically significant difference between the pre-test and post-test scores within the control group as reported in the study. However, the post-test mean score of the experimental group was higher than that of the control group.

Comparison between the two groups demonstrated a statistically significant difference in post-test knowledge. The experimental group obtained a post-test mean score of 25.00 ± 4.017 , compared with 21.46 ± 6.124 in the control group. The mean difference was

3.53 ± 6.857 , with a calculated t-value of 2.822 and $p = 0.0009$, which was statistically significant at the 0.05 level. This finding indicates that students who received the intervention achieved better knowledge scores than those in the control group.

The distribution of post-test knowledge levels further supports the effectiveness of the intervention. In the experimental group, 63.3% of students achieved excellent knowledge, compared with 30% in the control group. Very good knowledge was observed among 26.7% of students in the experimental group and 53.3% in the control group, while good knowledge was observed among 10% and 6.7%, respectively. The findings suggest that the intervention shifted a considerable proportion of students toward the higher knowledge categories.

The study also examined the association between post-test knowledge and selected demographic variables. A statistically significant association was found between knowledge and age ($\chi^2 = 11.094$, $p = 0.026$) and marital status ($\chi^2 = 12.066$, $p = 0.002$). However, no significant association was reported with gender, educational qualification, area of residence, religion, or previous participation in a hypnobirthing therapy programme.

The discussion presented in the PDF is consistent with the broader rationale of the study, which emphasizes the value of structured and interactive educational approaches for improving students' understanding of relatively new or complementary concepts. The PDF states that the Structured Teaching Method helped students understand concepts clearly and retain information better, and it relates the findings to previous studies reporting better outcomes with interactive structured teaching methods.

Overall, the findings suggest that structured educational intervention can be an effective strategy for improving nursing students' knowledge regarding hypnobirthing therapy. Improved knowledge may help prepare nursing students to understand complementary approaches to maternal care and to provide appropriate health education to women during antenatal and maternity care. The findings also support the need for incorporating relevant complementary and holistic care concepts into nursing education and for conducting further research with larger samples and stronger research designs.

VIII. CONCLUSION

The study concluded that the Structured Teaching Method (STM) was effective in improving nursing students' knowledge regarding hypnobirthing therapy. The experimental group showed a significant improvement in knowledge from the pre-test to the post-test, indicating the effectiveness of the educational intervention. The findings also demonstrated better post-test knowledge in the experimental group compared with the control group. Therefore, structured teaching can be considered an effective method for strengthening nursing students' understanding of hypnobirthing therapy and preparing them to provide appropriate education and support to women during childbirth.

REFERENCES