



Effectiveness of Video Assisted Teaching (VAT) programme regarding non-pharmacological management on stress and anxiety among antenatal mothers at selected maternity hospitals, Bangalore

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Citation this Article: Ms. Rose Mary Chyrmang, Mrs. Vani H M, “Effectiveness of Video Assisted Teaching (VAT) programme regarding non-pharmacological management on stress and anxiety among antenatal mothers at selected maternity hospitals, Bangalore”, IJMSIR - May – 2025, Vol – 10, Issue - 3, P. No. 198 – 207.

Type of Publication: Original Research Article

Conflicts of Interest: Nil

Abstract

Introduction: Giving birth is one of the great honors which god gave to woman, for this woman is admired far and wide. According to World Health Organization, ill health as a result of gestation is endured by further than 20 million women around the world. Similarly stress and anxiety during gestation can occasionally lead to gestation complications or have an impact on the baby. Most pregnant women experience fatigue & mood swings during pregnancy, whereas some women experience stress and anxiety in some kind, whether it financial stress or anxious about being a single mother, and medical worries. These features are common during gestation. But some women suffer to an extreme. Relaxation could be a veritably useful to manage with the changes of stress and anxiety during gestation. This study was undertaken to assess the knowledge of antenatal mothers regarding stress and anxiety using non-pharmacological management method.

Methods: A Quasi experimental research design study with non-randomized convenient sampling techniques was used to draw samples for this study. Sample size for this study comprises 60 antenatal mothers, gestational period between 29- 40 weeks, by using Structured knowledge questionnaire containing demographic variables was administered to antenatal mothers.

Results: In the pre- test knowledge results; majority of antenatal mothers 75% were found to have poor knowledge, remaining 25% had average knowledge. In post-test, majority of antenatal mothers 71.3% had good knowledge and remaining 21.7%. According to mean knowledge scores; pre-test was 71.7% and Post-test was 84.7% Chi-square analysis was carried out to determine the association between the pre- test knowledge score with their demographic variables and its found statically significant at $p < 0.05$ level at 1.96 df such as educational status chi-square value is 8.22; Occupational is 7.95; Area of Residence is 5.05; Type of Family is 0.20; Family Income/month is 11.11; Diet pattern is 6.63;

Gravida of pregnancy is 0.40 and Present period of gestation in third trimester is 0.58.

Conclusion: The study concluded that the post-test knowledge of antenatal mothers was improved after administering VAT programme, the study revealed that 71.3% of antenatal mothers acquired adequate knowledge with the mean score in pre-test Knowledge was 71.7%, and Post-test Knowledge scores was 84.7%. overall findings of the study showed that VAT programme was effective in improving knowledge level of antenatal mothers regarding non-pharmacological management on stress and anxiety.

Keywords: Effectiveness, VAT, Knowledge, Nonpharmacological, Management, Stress and Anxiety

Introduction

The reproductive life of a woman begins at menarche and ends with menopause. The normal duration of gestation is about 9 months.¹ Although gestation is a happy time for numerous people, it can also be a time of stress and anxiety. Prenatal mothers witness body changes and internal and feelings changes. They may be bothered about gestation loss, the health of their baby. Some women experience mild anxiety during pregnancy, for others, anxiety can become a serious issue.² In antenatal care, non-pharmacological methods of managing stress and anxiety include yoga, meditation, Benson relaxation therapy, exercise, music therapy, and diet.

By slowing down the body and calming the mind, relaxation techniques are effective strategies for managing stress and supporting long-term health in antenatal care during pregnancy. Studies have indicated that the frequent application of the Relaxation Response can be beneficial for any chronic stress-related health issue. Dr. Herbert Benson, a cardiologist, author, professor, and the founder of Harvard's Mind/Body Medical Institute, is credited with coining the phrase

"Relaxation Response". Dr. Benson explains that practicing the Relaxation Response on a daily basis can be a useful treatment for a variety of diseases associated to stress.³

Pregnancy yoga can reduce the impact of typical symptoms like constipation, painful leg cramps, swollen ankles, and morning sickness. There are other yoga poses that are advised, including Vajrasana, Konasana-I (Standing Sideways Bending One Arm), Butterfly Pose, Nadi Shodhana, and Marjariasana (Cat Stretch).⁴ Exercising elevates mood and enhances strength, endurance, tone, and muscular tone, it can also prevent or treat gestational diabetes, which is another benefit to the unborn child. Being physically fit and ready for child birth can be achieved through exercise.,⁵ Since ancient times, music has been employed as a kind of remedy and is said to have remedial parcels. Music has been demonstrated to reduce anxiety and its goods by lowering catecholamine and stress hormone. 6A healthy diet during gestation promotes the growth and development of the fetus. group to achieve a healthy, balanced diet.,⁷

Materials and Methods

Research design: Quasi experimental research design

Variables:

Independent variable: video assisted teaching programme.

Depended variable: knowledge regarding nonpharmacological management on stress and anxiety among antenatal mothers.

Demographic variables: In this study it refers to Age, education, area of residence, occupation, types of family, family income, diet pattern, numbers of pregnancy, period of gestational weeks.

Setting of the study: the study was conducted at Mallasandra and Chikkabanavara Maternity Hospitals.

Sample size: 60 antenatal mothers

Sample technique: Non randomized convenient sampling technique

Inclusion criteria

- Antenatal mothers who are in the antenatal ward and OPD.
- Those who are available at the time of data collection
- Those who are willing to participate.

Exclusion criteria

- Antenatal mothers who are not available at the time of data collection.
- Antenatal mothers who are expected to have maternal gestational complication.

Development of the Tool

The tool was prepared with help of various resources:

- Review of literature such as journals articles, published and unpublished research studies books etc.
- Opinions from experts of Obstetrics and Gynaecological nursing college and doctors
- Expert's opinion from Biostatistician.

A blue print was prepared to conduct tool which consists of knowledge and management regarding nonpharmacological. The tool consists of the following:

Section A: Demographic data

This section consists of 9 items on general information about the Age, education, area of residence, occupation, types of family, family income, diet pattern, and numbers of pregnancy and period of gestational weeks.

Section B: Self-administering knowledge questionnaire

This section consists of 30 multiple choice questions regarding non pharmacological management on stress and anxiety in antenatal which includes relaxation techniques, Benson relaxation therapy, meditation, yoga, exercise, music therapy and diet.

Content validity

The initial draft of the content was given to seven experts, comprising of five nursing educators from Obstetrics and Gynaecology, one Gynecologist and one Biostatistician in Bangalore. The experts were requested to validate the video assisted teaching and to give suggestions on the adequacy and relevance of the content. The suggestion given by them was accepted to ensure the clarity and validity of the tool.

Reliability of the tool

In order to establish reliability of the tool split half method was used in this study. The reliability coefficient of the test for the knowledge score was found to be $r=0.92$, which is a very strong positive relationship, so the tool was found to be reliable and feasible.

Ethical consideration

Formal permission was obtained from ethical committees of R. R. College of nursing and concerned authorities of Mallasandra and Chikkabanavara maternity Hospitals, Bangalore.

Pilot Study

The pilot study was conducted at N. R. R Hospitals, Bangalore. The data for the study was collected from antenatal mothers who are admitted and available in OPD. The samples for this study were selected by convenient sampling technique. Video assisted teaching programme was conducted on the same day on the 7th day post- test was done. The study was found feasible.

Data Collection Procedure

The main study was conducted at Mallasandra and Chikkabanavara maternity Hospitals, Bangalore by obtaining prior permission from the Medical officer and Medical director. The subjects were selected according to the selection criteria of the study. The investigator prepared structure knowledge questionnaire which was validated by 7experts. Pre-test was done on the first day

by distributing the questionnaire to the selected mothers who are admitted and available in OPD at Mallasandra and Chikkabanavara maternity Hospitals. The purpose of the study was explained and confidentiality of the responses was assured by the investigator. Immediately after the antenatal mother filled the questionnaire video assisted teaching was conducted.

Statistical Methods

Statistical Methods for the study was done by using SPSS version. The summary of the analysis was done under the following sections:

Section 1: The description of demographic variables of antenatal mothers.

1.1 Frequency and percentage distribution of demographic variables of antenatal mothers.

Section 2: Assessment of pre-test and post-test knowledge

2.1 Frequency distribution of samples according to pretest and post-test level of knowledge.

2.2 Mean and Standard deviation; mean square percentage and Standard deviation percentage of pre-test and post-test Knowledge.

Section 3: Effectiveness of video assisted teaching comparing pre-test and post-test score.

3.1 Outcomes of paired t-test analysis on comparison of pre-test and post-test knowledge

3.2 Outcomes of paired t-test analysis on comparison of pre-test and post-test aspect wise knowledge.

Section 4: Association between levels of knowledge with their selected demographic variables.

4.1 Association between the knowledge score with demographic variables.

Results:

Section 1: Distribution of samples based on frequency and percentage of demographic characteristic

Table 1.1: Classification of Respondents by Personal N=60

| Sl. no | Demography | Category | Respondents | |
|--------|--------------------|------------------|-------------|----------------|
| | | | Number | Percentage (%) |
| 1 | Age group | 19-26 | 18 | 30.0 |
| | | 27-30 | 19 | 31.7 |
| | | 31-35 | 23 | 38.3 |
| 2 | Educational status | Secondary | 15 | 25.0 |
| | | Higher secondary | 26 | 43.3 |
| | | Degree/PG | 19 | 31.7 |
| 3 | Occupational | Home maker | 29 | 48.4 |
| | | Own Business | 9 | 15.0 |
| | | Private | 14 | 23.3 |
| | | Government | 8 | 13.3 |
| | Total | | 60 | 100.0 |

- According to age, antenatal mothers 23(38.3%) were 31-35 years, 19(31.7%) were below 27- 30 years and 18(30.0%) were 19-26 years.
- According to education status, most antenatal 26 (43.3%) studied till higher secondary, 19 (31.7%) studied till degree/PG and 15 (25.0%) studied up to secondary.
- Regarding occupation, most of the antenatal mothers 38(48.4%) were home maker, 14(23.3%) were working in private sector, 9(15.0) were having the own business and 8(13.3) mothers working in government sector.

Table 1.2: Classification of Respondents by Family Characteristics N=60

| Sl. no | Demographic | Category | Respondents | |
|--------|---------------------|-------------------|-------------|----------------|
| | | | Number | Percentage (%) |
| 1 | Area of Residence | Urban | 27 | 45.0 |
| | | Rural | 33 | 55.0 |
| 2 | Type of Family | Nuclear | 27 | 45.0 |
| | | Joint | 33 | 55.0 |
| 3 | Family Income/month | Rs.10,000 -19,000 | 0.9 | 15.0 |
| | | Rs.19,001 -29,000 | 18 | 30.0 |
| | | Rs.29,001 -39,000 | 27 | 45.0 |
| | | >Rs.39,000 | 0.6 | 10.0 |
| | Total | | 60 | 100.0 |

- According to area of residence most of the antenatal mothers 33 (55.0) were living in Rural and 27 (45.0) were living in urban.
- According to type of family, majority of the antenatal mothers 33 (55.0) were from joint family and 27(45.0) were from nuclear family
- According to income of family of antenatal mothers 27(45.0%) had family income of Rs. 29,001-39,000/, 18 (30.0%) had between Rs. 19,001- 29,000 and above 9 (15.0%) had their family income between Rs. 10,000-19,000and remaining 6(10.0%) belonged to family having income more than >Rs. 39,000.

Table 1.3: Classification of Respondents by related characteristics N=60

| Sl. no | Demographic | Category | Respondents | |
|--------------|------------------------------------------------|----------------|-------------|----------------|
| | | | Number | Percentage (%) |
| 1 | Diet pattern | Vegetarian | 19 | 31.7 |
| | | Non-vegetarian | 14 | 23.3 |
| | | Mixed | 27 | 45.0 |
| 2 | Gravida of pregnancy | Primi | 40 | 66.7 |
| | | Multi | 20 | 33.3 |
| 3 | Present period of gestation in third trimester | 29-32 | 25 | 41.7 |
| | | 33-36 | 23 | 38.3 |
| | | 37-40 | 12 | 20.0 |
| Total | | | 60 | 100.0 |

- According to dietary pattern, majority of antenatal mothers 27(45.0%) were mixed diet 19(31.7%) were vegetarian and remaining 14(23.3%) were mixed diet.
- Regarding gravida of pregnancy, majority of antenatal mothers 40(66.7%) were primi mothers and remaining 20(33.3%) were multi mothers.
- Regarding present period of gestation in third trimester antenatal mothers 25(41.7%) were 29-

32weeks of gestation, 23(38.3%) were 33-36 weeks of gestation, and remaining 12(20.0%) were 37-40 weeks of gestation.

- The above tables (1.1) (1.2) (1.3) represent the frequency and percentage distribution of antenatal mothers according to their demographic variable.

Section 2: Assessment of Pre And Post-test Knowledge

2.1.1 Frequency distribution of sample according to pretest knowledge level on non – pharmacological management on stress and anxiety among antenatal mothers

| Sl. no | Knowledge level | Category | Respondents | |
|--------------|-----------------|---------------|-------------|----------------|
| | | | Number | Percentage (%) |
| 1 | Poor | ≤ 50 % Score | 45 | 75.0 |
| 2 | Average | 51-75 % Score | 15 | 25.0 |
| 3 | Good | > 75 % Score | 0.0 | 0.0 |
| Total | | | 60 | 100.0 |

2.1.2 Frequency distribution of sample according to post-test knowledge

| Sl. No | Knowledge level | Category | Respondents | |
|--------------|-----------------|---------------|-------------|----------------|
| | | | Number | Percentage (%) |
| 1 | Poor | ≤ 50 % Score | 0.0 | 0.0 |
| 2 | Average | 51-75 % Score | 13 | 21.7 |
| 3 | Good | > 75 % Score | 47 | 71.3 |
| Total | | | 60 | 100.0 |

The above table shows, majority of antenatal mothers 45(75%) had poor knowledge, remaining 15(25%) had average knowledge and none of them was found to be with good knowledge But, in post-test, majority 47(71.3 %) had good knowledge and remaining 13(21.7) had average knowledge and none of them was found to be with poor knowledge.

It evidenced that there is an increase in the knowledge among antenatal mother.

2.2.1: Aspect wise Pre-test Mean Knowledge scores on Non-pharmacological management on Stress and anxiety N=60

| Sl.No | Knowledge Aspects | State Ments | Max. Score | Knowledge Scores | | | |
|-------|------------------------------------------------------------|-------------|------------|------------------|------------|-------------|-------------|
| | | | | Mean | SD | Mean (%) | SD (%) |
| I | Introduction | 5 | 5 | 2.12 | 1.11 | 42.3 | 22.1 |
| II | Definition, Causes & Symptoms | 4 | 4 | 1.45 | 0.93 | 36.3 | 23.2 |
| III | Management | 19 | 10 | 6.63 | 2.61 | 34.9 | 13.7 |
| A | Relaxation | 3 | 3 | 1.33 | 0.73 | 44.4 | 24.3 |
| B | Yoga | 4 | 4 | 1.30 | 0.93 | 32.5 | 23.2 |
| C | Exercise | 4 | 4 | 1.38 | 0.78 | 34.6 | 19.6 |
| D | Music | 4 | 4 | 1.35 | 0.90 | 33.8 | 22.5 |
| E | Diet | 4 | 4 | 1.27 | 0.88 | 31.7 | 22.0 |
| IV | Benefits, Signs to terminate of non-pharmacological method | 2 | 2 | 0.42 | 0.56 | 20.8 | 28.1 |
| | Combined | 30 | 30 | 10.62 | .06 | 35.4 | 13.5 |

Table 2.2.2: Aspect wise Post-test Mean Knowledge scores on Non-pharmacological management on Stress and anxiety N=60

| Sl. No. | Knowledge Aspects | State Ments | Max. Score | Knowledge Scores | | | |
|---------|------------------------------------------------------------|-------------|------------|------------------|-------------|-------------|------------|
| | | | | Mean | SD | Mean (%) | SD (%) |
| I | Introduction | 5 | 5 | 4.25 | 0.91 | 85.0 | 18.3 |
| II | Definition, Causes & Symptoms | 4 | 4 | 3.30 | 0.56 | 82.5 | 14.0 |
| III | Management | 19 | 10 | 16.13 | 1.43 | 84.9 | 7.5 |
| A | Relaxation | 3 | 3 | 2.62 | 0.52 | 87.2 | 17.5 |
| B | Yoga | 4 | 4 | 3.17 | 0.59 | 79.2 | 14.7 |
| C | Exercise | 4 | 4 | 3.38 | 0.64 | 84.6 | 16.0 |
| D | Music | 4 | 4 | 3.33 | 0.66 | 83.3 | 16.4 |
| E | Diet | 4 | 4 | 3.63 | 0.52 | 90.8 | 13.0 |
| IV | Benefits, Signs to terminate of non-pharmacological method | 2 | 2 | 1.72 | 0.45 | 85.8 | 22.7 |
| | Combined | 30 | 30 | 5.40 | 2.40 | 84.7 | 8.0 |

According to Mean Knowledge scores; pre-test Knowledge scores was 35.4%, Post-test Knowledge scores was 84.7%. Based on Introduction; pre-test Knowledge scores was 42.3%, Post-test Knowledge scores was 85.0%; based on Definition, Causes & Symptoms pre-test Knowledge scores was 36.3%. Post-test Knowledge scores was 82.5% based on Management; pre-test Knowledge scores was 34.9%; Post-test Knowledge scores was 84.9%; based on Relaxation Knowledge scores was 44.4%, Post-test Knowledge scores was 87.2% based on yoga Knowledge

score was 32.5%; ;Post-test Knowledge scores was 79.2 ; based on Exercise Knowledge score was 34.6%;Post-test Knowledge scores was 84.6%; based on music Knowledge score was 33.8%; Post-test Knowledge scores was 83.3%; based on diet Knowledge score was 31.7%; Post-test Knowledge scores was 90.8%; based on Benefits, Signs to terminate of nonpharmacological method Knowledge score was 20.8% ; Post-test Knowledge scores was 85.8% .

Section: 3 Outcome of paire ‘t’ test analysis on comparing pre- test and posttest knowledge score.

Aspect wise Mean Pre-test and Post-test Knowledge Scores N=60

| Sl.No | Knowledge Aspects | Respondents Knowledge (%) | | | | | | Paired 't' Test |
|-------|------------------------------------------------------------|---------------------------|-------------|-------------|------------|-------------|-------------|-----------------|
| | | Pre test | | Post test | | Enhancement | | |
| | | Mean | SD | Mean | SD | Mean | SD | |
| I | Introduction | 42.3 | 22.1 | 85.0 | 18.3 | 42.7 | 21.0 | 15.75* |
| II | Definition, Causes & Symptoms | 36.3 | 23.2 | 82.5 | 14.0 | 46.3 | 24.7 | 14.52* |
| III | Management | 34.9 | 13.7 | 84.9 | 7.5 | 50.0 | 12.7 | 30.49* |
| A | Relaxation | 44.4 | 24.3 | 87.2 | 17.5 | 42.8 | 27.5 | 12.06* |
| B | Yoga | 32.5 | 23.2 | 79.2 | 14.7 | 46.7 | 26.2 | 13.81* |
| C | Exercise | 34.6 | 19.6 | 84.6 | 16.0 | 50.0 | 25.6 | 15.13* |
| D | Music | 33.8 | 22.5 | 83.3 | 16.4 | 49.6 | 25.0 | 15.37* |
| E | Diet | 31.7 | 22.0 | 90.8 | 13.0 | 59.2 | 23.0 | 19.94* |
| IV | Benefits, Signs to terminate of non-pharmacological method | 20.8 | 28.1 | 85.8 | 22.7 | 65.0 | 30.9 | 16.29* |
| | Combined | 35.4 | 13.5 | 84.7 | 8.0 | 49.3 | 10.4 | 36.72* |

* Significant at 5% level, t (0.05,59 df) = 1.96

3.1. Over all Pre-test and Post-test Mean Knowledge Scores N=60

| SL.NO | Aspects | Max. Score | Knowledge Scores | | | | Paired 't' Test |
|-------|-------------|------------|------------------|------|-----------|--------|-----------------|
| | | | Pre test | | Post test | | |
| | | | Mean | SD | Mean (%) | SD (%) | |
| 1 | Pre test | 30 | 10.62 | 4.06 | 35.4 | 13.5 | 36.72* |
| 2 | Post test | 30 | 25.40 | 2.40 | 84.7 | 8.0 | |
| 3 | Enhancement | 30 | 14.78 | 3.12 | 49.3 | 10.4 | |

* Significant at 5% level, t (0.05,59 df) = 1.96

According to Mean Knowledge scores; pre-test Knowledge scores was 35.4%, Post-test Knowledge scores was 84.7% and enhancement score is 49.3%.

3.2. Outcome of the paired 't' test analysis on comparing pre-test and posttest aspect wise knowledge score.

Classification of Respondents on Pre-test and Post-test Knowledge level

| SL.NO | Knowledge Level | Category | Classification of Respondents | | | | χ ² Value |
|-------|-----------------|---------------|-------------------------------|--------------|-----------|--------------|----------------------|
| | | | Pre test | | Post test | | |
| | | | N | % | N | % | |
| 1 | Poor | ≤ 50 % Score | 45 | 75.0 | 0 | 0.0 | 92.14* |
| 2 | Average | 51-75 % Score | 15 | 25.0 | 13 | 21.7 | |
| 3 | Good | > 75 % Score | 0.0 | 0.0 | 47 | 78.3 | |
| | Total | | 60 | 100.0 | 60 | 100.0 | |

* Significant at 5% level, χ² (0.05,2df) = 5.991

It demonstrates that the VAT improved knowledge regarding non-pharmacological on stress and anxiety management among antenatal mothers. The paired 't' test yielded significant results at p<0.005. Thus, the null hypothesis (H₀) is rejected while the research hypothesis (H₁) is accepted. It shows that the evidence that the VAT was effective in improving knowledge regarding Non-pharmacological management on stress and anxiety among antenatal mothers.

Section 4: Association between the Pre-test or post-test Knowledge score with their selected Demographic variables among antenatal mothers regarding Non-pharmacological management on Stress and anxiety N=60

| Sl. No | Demographic Variables | Category | Sample | Knowledge Level | | | | χ^2 Value | P Value |
|--------|------------------------------------------------|------------------|--------|-----------------|------|---------|------|-------------------|-------------------|
| | | | | Poor | | Average | | | |
| | | | | N | % | N | % | | |
| 1 | Age group | 19-26 | 18 | 15 | 83.3 | 3 | 16.7 | 2.00 NS | P>0.05 (5.991) |
| | | 27-30 | 19 | 15 | 78.9 | 4 | 21.1 | | |
| | | 31-35 | 23 | 15 | 65.2 | 8 | 34.8 | | |
| 2 | Educational status | Secondary | 15 | 14 | 93.3 | 1 | 6.7 | 8.22* | P<0.05 (5.991) |
| | | Higher secondary | 26 | 21 | 80.8 | 5 | 19.2 | | |
| | | Degree/PG | 19 | 10 | 52.6 | 9 | 47.4 | | |
| 4 | Area of Residence | Urban | 27 | 24 | 88.9 | 3 | 11.1 | 5.05* | P<0.05 (5.991) |
| | | Rural | 33 | 21 | 63.6 | 12 | 36.4 | | |
| 3 | Occupational | Home maker | 29 | 24 | 82.8 | 5 | 17.2 | 7.95* | P<0.05 (7.815) |
| | | Own Business | 9 | 8 | 88.9 | 1 | 11.1 | | |
| | | Private | 14 | 10 | 71.4 | 4 | 28.6 | | |
| | | Government | 8 | 3 | 37.5 | 5 | 62.5 | | |
| 5 | Type of Family | Nuclear | 27 | 21 | 77.8 | 6 | 22.2 | 0.20 NS | P>0.05 (3.841) |
| | | Joint | 33 | 24 | 72.7 | 9 | 27.3 | | |
| 6 | Family Income /month | Rs.10,000-19,000 | 9 | 8 | 88.9 | 1 | 11.1 | 11.11* | P<0.05 (7.815) |
| | | Rs.19,001-29,000 | 18 | 17 | 94.4 | 1 | 5.6 | | |
| | | Rs.29,001-39,000 | 27 | 18 | 66.7 | 9 | 33.3 | | |
| | | >Rs.39,000 | 6 | 2 | 33.3 | 4 | 66.7 | | |
| 7 | Diet pattern | Vegetarian | 19 | 18 | 94.7 | 1 | 5.3 | 6.64* | P<0.05 (5.991) |
| | | Non-vegetarian | 14 | 8 | 57.1 | 6 | 42.9 | | |
| | | Mixed | 27 | 19 | 70.4 | 8 | 29.6 | | |
| 8 | Gravida of pregnancy | Primi | 40 | 29 | 72.5 | 11 | 27.5 | 0.40 NS | P>0.05 (3.841) |
| | | Multi | 20 | 16 | 80.0 | 4 | 20.0 | | |
| 9 | Present period of gestation in third trimester | 29-321 | 25 | 18 | 72.0 | 7 | 28.0 | 0.5 8 NS | P>0.05 (5.991) |
| | | 33-36 | 23 | 17 | 73.9 | 6 | 26.1 | | |
| | | 37-40 | 12 | 10 | 83.3 | 2 | 16.7 | | |
| 10 | Combined | | 60 | 45 | 75.0 | 15 | 25.0 | | |

* Significant at 5% Level, NS: Non-significant

Note: Figures in the parenthesis indicate Table value

In this study the mean pre-test and mean post-test knowledge score with their demographic variables the Chi-square test was carried out and it was found statically significant at $p < 0.005$ level- Educational status Chi-square value is 8.22 at 2 df; Occupational Chi-square value is 7.95 at 2 df; area of residence Chi-square value is 5.05 at 2 df; type of family Chi-square value is 0.20 at 2df; Family Income/month Chi-square value is 11.11 at 2 df; Diet pattern Chi square value is 6.64 at 2 df; Gravida of pregnancy Chi-square value is 0.40 at 2 df; Present period of gestation in third trimester Chi-square value is 0.58 at 2 df; Hence the research hypothesis (H_1) was accepted and the null hypothesis (H_0) is rejected. It shows that the evidence that there is significant

difference between knowledge score with selected demographic.

Discussion

The study findings show that among 60 antenatal mothers in pre- test knowledge results; majority of antenatal mothers 75% were found to have poor knowledge, remaining 25% had average knowledge but, in post-test, majority of antenatal mothers 71.3 % had good knowledge and remaining 28.7 had average knowledge. Regarding the overall Mean score percentage in pre-test was 35.4%, and SD was 13.5% and in post-test was 84.7% and SD was 8.0%, with paired ‘t’ test was 36.72. In the supportive study done to assess the effectiveness of Benson's relaxation therapy on stress among primigravida mothers. 30 samples were selected; self-administered questionnaire was administered. Benson's relaxation therapy was administered to all

group members for 20 minutes and instructed to continue this for a period of 15 days. Post-test was conducted 15 days after the administration of Benson's relaxation therapy. The result of the study shows that the post-test mean stress score was less than the pre-test means stress score.⁸

The study findings of mean percentage pre-test knowledge were 14.78% and post-test was 3.12% and regarding the overall aspect wise knowledge mean percentage in pre-test was 49.3% and post-test was 10.4%. The findings of the study were supported by quasi-experimental study with pre- and post-test designs. The samples were collected from 50 pregnant women in Odisha using the purposive sampling technique. The Z test was used to determine the significant difference between the area-wise pretest and post-test, with a value of (-2.00) ($p < 0.005$). The null hypothesis is rejected ($p < 0.5$), and the statistical hypothesis is accepted. Thus, it may be concluded that VAT was effective in all areas.⁹ The study findings of the mean percentage pre-test knowledge was 35.4% and post-test was 84.07%. In pre-test mean knowledge score is 10.62%, mean percentage is 35.4% and SD is 4.06%, standard deviation percentage is 13.51%. In Post-test mean knowledge is found to be 25.40%, mean percentage is 84.07%. SD knowledge is found to be 2.40%, standard deviation percentage is 8.0%. The knowledge mean enhancement is 14.78% mean enhancement is percentage is 49.3%, the standard deviation enhancement is 3.12% the standard deviation enhancement percentage is 10.4%, and the paired t-test value is 36.72; It evidenced that VAT was statistically significant in improving knowledge among antenatal mothers. "There will be a significant association between mean pre- test and post-test knowledge scores of antenatal mothers regarding non-pharmacological management on stress and anxiety. The findings of the

study were supported by a study conducted on effects of yoga during pregnancy. The population of the study was 60 healthy primiparas without complications. Data analyzed was done. The mean significant after each yoga class time 1: 0.36–0.26 $\mu\text{g/dL}$ ($p < 0.001$), time 2: 0.32–0.26 $\mu\text{g/dL}$ ($p = 0.001$). The scores for a positive dimension of mood significantly increased, after watching videos.¹⁰

Chi-square analysis was carried out to determine the association between the pre- test knowledge score with their demographic variables and its found statically significant at $p < 0.05$ level at 1.96 df such as educational status chi-square value is 8.22; Occupational is 7.95; Area of Residence is 5.05; Type of Family is 0.20; Family Income/month is 11.11; Diet pattern is 6.63; Gravida of pregnancy is 0.40 and Present period of gestation in third trimester is 0.58. Hence, the research hypothesis (H1) was accepted and the null hypothesis (H0) is rejected. The findings of the study were supported by a cross-sectional study conducted among pregnant women. A structured demographic questionnaire and (HAMA-A) scale were used to assess demographic features and anxiety, respectively. Results show the frequency of anxiety disorders was 13% ($n = 65$; 95% CI: 9.8–15.7%). Factors that were significantly associated with anxiety disorders were low income of the participants (adjusted odds ratio [AOR] = 2.65, 95% CI: 1.16–6.06), bad relationship with spouse (AOR = 2.50, 95% CI: 1.01–5.82) and history of hypertension in previous pregnancy (AOR = 4.17, 95% CI: 1.68–10.37).¹¹

Conclusion

The conclusion was based on the study's findings, which were as follows:

- Antenatal mothers had poor knowledge regarding nonpharmacological management on stress and anxiety before VAT administration.

- Overall pre-VAT administration, 75.0% of antenatal mothers had poor knowledge regarding nonpharmacological management on stress and anxiety therapy.
- After administering VAT, antenatal mothers improved their knowledge by 78.3%. Video-assisted teaching program was effective in increasing the knowledge of antenatal mothers regarding non-pharmacological management on stress and anxiety.
- There is a significant difference between pre-test and post-test knowledge.
- There was statistically association between mean pretest knowledge score with selected demographic variables of antenatal.
- Overall findings reveal that the knowledge of antenatal mothers regarding non-pharmacological management on stress and anxiety was not good before the administration of VAT but it showed a gain in knowledge after the administration of VAT.

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