



International Journal of Obstetrics and Gynaecological Nursing

E-ISSN: 2664-2301
P-ISSN: 2664-2298
IJOGN 2020; 2(2): 35-38
Received: 23-05-2020
Accepted: 26-06-2020

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A pre-experimental study to assess the effectiveness of music therapy in reducing the level of stress and anxiety among antenatal mothers in Saidapet

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Abstract

Pregnancy can be both an exciting and worrying time for parents-to-be. Pregnant women experience a range of physical and emotional changes, all of which may trigger anxiety. Fear of the unknown, stress, feelings of insecurity over work or money, and daily pressures add to hormonal changes during pregnancy and may make women feel overwhelmed. Music Therapy stimulates good vibrations in the nerves of the listeners. Music therapy helps to clear the junked thought in mind, which leads to have positive frame of mind. Music therapy is easily used in most environments and it can be tailored to personal preferences to enhance relaxation. Stress is the most imprecise word in the scientific dictionary. Stress is an inevitable part of everyday life for every one of us. Negative stress leads to physiological problems, which in turn leads to psychosomatic problems. The research design for the study pre-experimental research design. Purposive sampling technique was used to select samples. Structured interview was used to collect background variable, co-dependency scale and center for epidemiological studies depression scale. Data were collected by 60 from urban population at saidapet. The data presented shows that in pre- test had no stress has 5 (8%), mild stress has 10(17%), moderate stress 15(25%) and 30 (50%). The level stress was reduced at post test level no stress 5 (8%), mild stress 5 (8%), moderate stress level 50(83%) and severe stress level 0(0)level. The result shows that the level of anxiety regarding pre-test No anxiety 0(0), mild anxiety 5(8%), moderate anxiety 30(50%), severe anxiety 25(42%). Regarding post – test the level of anxiety No anxiety 15(25%), mild anxiety 25(42%), moderate anxiety 20(33%), severe anxiety 0(0). Regarding the level of anxiety association age and income were non significant at level of 0.05. Religion, education, gestational age, source of information were the significant to 0.05 level. The result for association between the demographic variable and stress such as age, education, income and gestational age were not significant to 0.05 level of significance. Regarding religion and source of income were significant to 0.05 level of significance.

Keywords: Music therapy, pregnancy, anxiety and stress

Introduction

Pregnancy is a unique and stressful period for many expectant mothers. This time period frequently increases stress and anxiety and results in depression. Pregnancy can be an intense time in the life of an expecting mother. From the drastic alterations of the body to the overwhelming emotions that flood the heart and mind. Pregnancy is filled with physical changes and emotional changes. Pregnancy is a transformational experience. During pregnancy emotions run high. From excitement to joy, anxiety to panic, a woman may experience a complete range of emotions while pregnant. The first trimester can be a roller coaster of pregnancy emotions. For planned pregnancies, a woman may experience joy, happiness and anxiety about the new life she is growing inside her. An unplanned pregnancy may bring feelings of fear, worry and panic. Most pregnant women experience fatigue and moodiness during the first trimester of pregnancy ^[1].

Birth is a remarkable and explosive event that occurs usually between 35 and 39 weeks after conception. It is typified by painful contractions of the uterus progressive dilation of the cervix, and descent of the presenting part of the baby through the mother's birth canal ^[2].

The possible causes of anxiety during pregnancy could be certainly about pregnancy, labour and delivery, baby's well being, parenting ability, situational factors, and how the baby will affect family or other relationships. The third trimester is the time of anticipation. Soon the nine months will come to an end, and the baby will be born. First-time mothers usually have increased anxiety and concern about labor and the delivery. First-time mothers have a great deal of anxiety about whether they will know when labor will start.

However, anxiety relating to childbirth is widespread among pregnant women [3].

Stress is the most imprecise word in the scientific dictionary. The present day heavy schedule of work and other activities extols the individual's positive mindset. Stress has become a major buzzword and legitimate concern of the times. Stress is an inevitable part of everyday life for every one of us. Negative stress leads to physiological problems, which in turn leads to psychosomatic problems. Continuous exposure to stress, the individual's psychological and physiological resources become depleted; leads to gastrointestinal problems. Music plays a wonderful role in overcoming the stress which may be either positive or negative. Ragas with specific notes with its vibration give relief from stress and help to maintain freshness of the mind [4].

Music Therapy stimulates good vibrations in the nerves of the listeners. Music therapy helps to clear the junked thought in mind, which leads to have positive frame of mind. Music therapy is easily used in most environments and it can be tailored to personal preferences to enhance relaxation. Use of Music as a therapy helps search of an individual's personal harmony. Using music therapy to decrease psychological stress during pregnancy is therefore an appropriate alternative therapy. Individual of any age and ability may benefit from Music therapy program, regardless of musical skill and background. Music therapy may address physical, psychological, emotional, cognitive and social needs with therapeutic relationships [5].

Music therapy is a new form of approach to help children, adults and antenatal mothers, who have problematic behaviors, to make effective adjustments toward social, emotional, mental and educational aspects, where brain plays a dominant role. Many of the imbalances in the mind may also be made normal by regular exposure to certain ragas with special emphasis on certain notes. Music therapy acts on the human beings before being transformed into thought and feelings [6].

According to American Psychological Association reported the world wide prevalence rate of stress was 13.3% and worldwide prevalence rate of anxiety was 13% among adults. India is currently suffering an 13 epidemic of generalized anxiety disorders. In National Institute of Medical Science conducted a survey highlighting that 18.1% population are suffering from stress and anxiety in India [7].

Farideh bastani *et al.*, (2014) conducted a study to investigate the effect of applied relaxation training in reducing anxiety and perceived stress among pregnant women in Tarbiat Modarres University, Tehran, Iran. A randomized controlled trial with a prospective pre-test-post-test experimental design was used. One hundred ten primigravida women in their third trimester were randomly assigned to experimental and control groups. The experimental group received routine prenatal care with applied relaxation training including breathing exercises, and the control group received only routine prenatal care. State/trait anxiety was measured with the Spiel Berger State-Trait Anxiety Inventory, and perceived stress was measured with the Cohen Perceived Stress Scale. There were significant reductions in state/trait anxiety and perceived stress (85%) for the experimental group compared to the control group after the intervention. The findings suggest beneficial effects of relaxation on reducing anxiety

and perceived stress in pregnant women [8].

Wj yu *et al.*, (2010) conducted a study to identified the effects of abdominal breathing on state anxiety, stress and tocolytic dosage for pregnant women in Dankook University Hospital, Cheonan, Korea. The participants were 60 pregnant women who were hospitalised. Thirty participants were assigned to the experimental group and 30 to the control group. The modified Mason's breathing technique was used for the experimental group three times a day for three days. Data were collected using a self-report questionnaire and chart review. Only Group I showed significant reduction in post-test values of state anxiety and stress ($P < 0.05$) on Day 3 as compared to Day 1. Control group did not show any significant changes in the state anxiety as compared to the experimental group. Stress of the experimental group was lower than that of the control group. These results indicate that abdominal breathing is an effective nursing intervention for pregnant women [9].

Va cotton *et al.*, (2018) conducted a study to assess the effect of yogic relaxation including breathing exercise on both perceived stress and measured autonomic response in pregnant women. The 122 women recruited between the 20th and 24th week of pregnancy at prenatal clinics in Bangalore, India, were randomized to breathing exercises or standard prenatal exercises 1-hour daily. The results for the 45 participants per group who completed the study were evaluated by repeated measures analysis of variance. Perceived stress decreased by 31.57% in the experimental group and increased by 6.60% in the control group. During a guided relaxation period in the experimental group, compared with values obtained 23 before a practice session, the high-frequency band of the heart rate variability spectrum (parasympathetic) increased by 64 beats in the 20th week and by 150 beats in the 36th week, and both the low-frequency band (sympathetic), and the low frequency to high-frequency ratio were concomitantly reduced. Lowfrequency band remained decreased after deep relaxation in the 36th week in the experimental group. Relaxation reduces perceived stress and improves adaptive autonomic response to stress in pregnant women [10].

Hye sook shin *et al.*, (2011) conducted a study to assess the effects of music therapy on anxiety, stress and maternal fetal attachment in pregnant women during transvaginal ultrasound among 233 pregnant women. Pregnant women were assigned to experimental ($n=117$) and control ($n=116$) groups respectively. The experimental group received general prenatal care and single 30 minutes session of music therapy, while the control group received only general prenatal care. Anxiety, stress and maternal fetal attachment was assessed using three self report measures by state scale of state trait anxiety inventory, pregnant women's stress scale of ahn and cranley's maternal fetal attachment scale. The study concluded that music therapy group showed statistically significant decrease in anxiety compared to control group but no significant difference was identified in stress and maternal fetal attachment [11].

1. To assess the antenatal mothers according to their demographic variable. 2. To assess the level of stress regarding labour among antenatal mothers in saidapet. 3. To determine the level of anxiety regarding labour among antenatal mothers in selected. 4. To assess the effectiveness of music therapy in reducing the level of stress regarding labour among antenatal mothers. 5. To find out an association between stress and anxiety regarding labour

among antenatal mothers with selected demographic variables.

Methods and material

A pre-experimental study was conducted to assess the effectiveness of music therapy in reducing the level of stress and anxiety among antenatal mothers in saidapet. The main study was conducted on 4.3.2020 to 13.3.2020 at Urban population. The 60 samples who met the inclusion criteria were selected by purposive sampling technique. The investigator induced and explained the purpose of the study to samples and the written informed consent. A questionnaire was divided into two sections which include, Section A -background variable, section B consists of Pregnant women’s labour specific anxiety scale and section C consists of Pregnant women’s labour specific stress scale. The demographic data was collected using structured interview questionnaire. Data collection period was for 1 week in urban population at saidapet.

Result and discussion

Section A: to assess the antenatal mother according to their demographic variable

The present study revealed that Frequency and percentage distribution of demographic variables out of 60 samples

were come under the age group of 20-25 years 12 (20%), were the age group of 32(54%), were the age group of 16(26%). Regarding religion Hindu 40 (67%), Christian 18(30%), Muslim 2 (3%). Regarding education primary 10(16%), secondary 15(25%), higher secondary 30(50%), degree 5(9%). Regarding occupation employed 22(37%) unemployed (63%). Regarding income 5000-10000(33%), above 10000(30%), none 22(37%). Regarding gestational age 25-28 weeks 10(17%) 29-32 weeks 35(58%), 33-36(15%). Regarding types of family nuclear 42 (70%), joint family 18(30%), Regarding durational marital life 1-3 years 48(80%), 4-6 years 12(20%). Regarding residence rural 10(17%), urban 50(83%). Regarding types of pregnancy Natural 55(52%), artificial 5(17%). Regarding source of health information Internet 10(17%), friends and family 21(35%), Television 5(8%), Health professional 24 (40%).

Section B: To assess the level of stress regarding labour among antenatal mother at Saidapet

The present study revealed that in pre- test had no stress has 5 (8%), mild stress has 10(17%), moderate stress 15(25%) and 30 (50%). The level stress was reduced at post test level no stress 5 (8%), mild stress 5 (8%), moderate stress level 50(83%) and severe stress level 0(0) level.

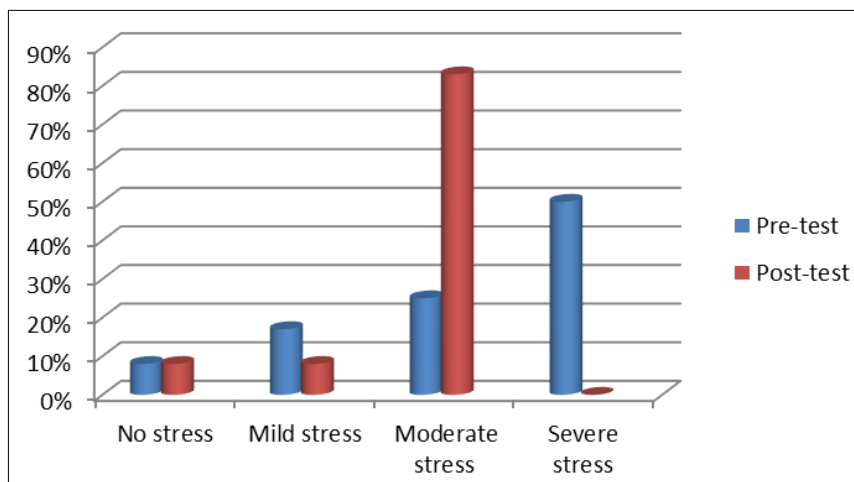


Fig 1: Frequency and distribution of the stress level regarding antenatal mother

Section C: To determine the level of anxiety regarding labour among antenatal mother at Saidapet

The present study revealed that the level of anxiety regarding pre-test No anxiety 0(0), mild anxiety 5(8%),

moderate anxiety 30(50%), severe anxiety 25(42%). Regarding post – test the level of anxiety No anxiety 15(25%), mild anxiety 25(42%), moderate anxiety 20(33%), severe anxiety 0(0).

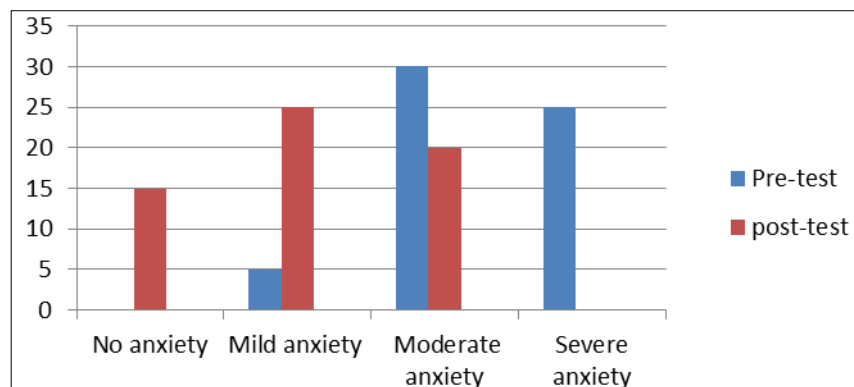


Fig 2: Frequency and distribution of the level of anxiety of antenatal mothers.

Section d: To assess the effectiveness of music therapy in reducing the level of stress and anxiety regarding labour among Antenatal mother

H0: There will be no significant effect of music therapy on level of anxiety regarding labour among the antenatal mother at 0.05 level of significant.

H1: There will be no significant effect of music therapy on level of stress regarding labour among the antenatal mother at 0.05 level of significant.

The result showed that the mean post- test anxiety score (42.3) was lower than the mean pre-test (73.3). The calculated „t“ value ($t= 21.064$) was greater than the table value at 0.05 level of significance. Hence the null hypothesis was rejected and the research hypothesis. Hence music therapy was found to be effective.

Section E: To find out association between the stress and anxiety regarding labour among antenatal mothers with selected demographic variables

The present study shows that the result for association between the demographic variable and anxiety such as age, religion, education status, income, gestational age and source of information. Regarding the level of association age and income were non significant at level of 0.05. Religion, education, gestational age, source of information were the significant to 0.05 level.

The present study shows that the result for association between the demographic variable and stress such as age education, income and gestational age were not significant to 0.05 level of significance. Regarding religion and source of income were significant to 0.05 level of significance.

Conclusion

Music is most effective to reduce the stress and anxiety level among the antenatal mothers. Regarding the level of anxiety association age and income were non significant at level of 0.05. Religion, education, gestational age source of information were the significant to 0.05 level. The result for association between the demographic variable and stress such as age, education, income and gestational age were not significant to 0.05 level of significance. Regarding religion and source of income were significant to 0.05 level of significance.

Acknowledgement

We would like to extent our gratitude of the authorities of Saveetha College of Nursing, and saidapet urban primary health centre head officer.

Authors contribution

All the authors actively participated in the work of the study. All authors read and approved the final, manuscript.

Conflicts of interest

The authors declare no conflicts of interest.

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