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Radhika A
M.Sc (N) II Year Student,
Madha College of Nursing,
Chennai, Tamil Nadu, India

Kanimozhi M
Vice Principal, Madha College
of Nursing, Chennai, Tamil
Nadu, India

Tamilarasi B
Principal, Madha College of
Nursing, Chennai, Tamil
Nadu, India

Jessy Rani P
Professor, Madha College of
Nursing, Chennai, Tamil
Nadu, India

Bharathi P
Associate Professor, Madha
College of Nursing, Chennai,
Tamil Nadu, India

Corresponding Author:
Radhika A
M.Sc (N) II Year Student,
Madha College of Nursing,
Chennai, Tamil Nadu, India

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Effectiveness of humming bee breathing technique on stress among women with infertility at selected fertility hospital in Chennai

Radhika A, Kanimozhi M, Tamilarasi B, Jessy Rani P and Bharathi P

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Abstract

The aim of the study was to assess the study to assess the effectiveness of humming bee breathing technique on stress among women with infertility. A Quasi experimental design was used to conduct the study. The study was done on 100 samples selected by non-probability purposive sampling technique from a selected hospital at Chennai. The data was collected through questionnaire and standardized fertility problem inventory scale. The data was analysed using descriptive and inferential statistics. The tool was organized in three parts (Demographic variables, standardized fertility problem inventory scale and humming breathing technique). After obtaining the permission from the concerned authorities, the data was collected. The analysis revealed that the mean level of stress was decreased from 198.1 to 93.0 which showed marked difference of 106 and the standard deviation was decreased from 40.2 to 25.0 which showed marked difference of 15.2 followed by humming breathing technique. Most of the samples had low level and mild level of stress, none of them had moderate level of stress and none of them had severe level of stress.

Keywords: Humming bee breathing technique, Infertility, stress, women with infertility

Introduction

Ladies are delightful, exquisite and sensitive creatures route not the same as men in a lot of things both intellectually and actually. For ladies, pregnancy and parenthood are formative achievements that are exceptionally underscored by our way of life. At the point when endeavors neglect to have a kid, it very well may be a sincerely wrecking experience.

The previous twenty years, propels in conceptive medication have made the treatment of infertility an exceptionally effective possibility that has given expectation and accomplishment to a great many couples. The high tech reproductive advances have related mental and moral issues that should be tended to by the barren couple. In this manner, it is significant for the medical care proficient to comprehend the mental issues encompassing barrenness. Addressing infertility is therefore an important part of realizing the right of individuals and couples to find a family.

Infertility implies not having the option to get pregnant after at any rate one year of endeavoring (or a half year if the lady is over age 35). On the off chance that a lady continues to have unsuccessful labors, it is likewise called barrenness. A lady who is determined to have infertility is by and large between the ages of 15 and 49 and incapable to get pregnant following one year of endeavoring to consider. Infertility can result from age, actual issues, chemical issues, and way of life or natural elements. As indicated by Center for Disease control 6% of ladies in trouble getting pregnant or conveying a pregnancy to term and 12% of wedded ladies are 2 accounted for to be barren.

Barrenness is a worldwide medical problem influencing a great many individuals of regenerative age around the world. Accessible information recommends that between 48 million couples and 186 million people have infertility all around the world. In the time of 2018 Research directed by Inito, a Bangalore-based clinical innovation organization, has unwound some frightening realities about barrenness in India. As indicated by the information, 10-15 percent wedded couples in India face barrenness. An astounding 27.5 million couples who need to consider experience the ill effects of barrenness.

Statement of Problem

A study to assess the effectiveness of humming bee breathing technique on stress among women with infertility at selected fertility hospital in Chennai.

Objectives

- To assess the pre-test and post-test level of stress among women with infertility in experimental group and control group.
- To find out the effectiveness of humming bee breathing technique among women with infertility in experimental group.
- To associate the post-test level of stress among women with infertility with their selected demographic variables

Hypothesis

- **H₁:** There is a significant difference between pre-test and post-test level of stress among women with infertility after humming bee breathing technique.
- **H₂:** There is a significant association between post-test level of stress among women with infertility with their selected demographic variables.

Methodology

Quantitative research approach was adopted for the study. A pre-test and post-test two group quasi experimental research was used to conduct the study. The study was done on 60 samples selected by non-probability purposive sampling technique from age group of 30-40 years who attended inpatient and outpatient department in Dhanwanthralaya Ayurvedic Specialty Hospital at Tamparam, Chennai. The sampling criterion includes women who were diagnosed as primary infertility with age group of 30- 40years, got infertility treatment more than 1year with stress. The data was collected through Standardized Fertility Problem Inventory. Before collecting the data formal permission was obtained from the concerned authority by explaining the purpose and objectives of the study. After the permission, verbal consent was obtained from individual sample. Each day about 6 women with who fulfilled the inclusion criteria by purposive sampling technique. A brief introduction was given about the purpose of the study and procedure explained to the women with infertility. The pre-test was conducted for 20 minutes by using a standardized fertility problem inventory tool to assess the level of stress for both groups. Followed by humming bee breathing technique was administered for experimental group for everyday 15 minutes. Patient's doubts and questions were clarified by the investigator. The post-test was conducted with same tool after one week. The collected data was tabulated and statically analyzed. The tool was used for study for the reliable. This study revealed that clarity, feasibility reliability in all aspects to conduct the main study.

Results and Discussion

The data collected was analyzed using descriptive and inferential statistics. The demographic variables of women with infertility 17 (56.6%) women in experimental group and 18 (60.0%) women in control group were belongs to the age group of 30-34years. Similarly 13 (43.3%) women in experimental group and 12 (40%) women in control group were belongs to the age group of 35-40 years. In concern with educational qualification none of them in

both groups were in the primary education, 6 (20.0%) were completed secondary education in experimental group, 8 (26.67%) were completed in control group. Similarly 24 (80%) had completed graduate in experimental group and 22(77.33%) had completed in control group.

With regard to occupation 10(33.33%) women were working as a self-employee in experimental group, 12 (40.00%) women were in control group. 15(50.00%) were working as a private employee in experimental group and 14(46.67%) were in control group. Similarly 5 (16.67%) women were working as a Govt. employee in experimental group and 4 (13.33%) were working as a govt. employee in control group.

In accordance with family monthly income 6 (20.00%) women in experimental group and 10 (33.33%) women in control group were belong to the range of > Rs 20,000. 18 (60.00%) women in experimental group and 15 (50%) women in control group belong to the range of Rs 20,001 – 40,000. Similarly 6 (20.00%) women in experimental group and 5(16.67%) women in control group belong to monthly income of > Rs. 40,000.

In relation to religion 16 (53.33%) were in experimental group and 10 (33.33%) were in control group belongs to Hindu religion. 9 (30.00%) were in experimental group and 13(43.33%) were in control group belongs to Muslim religion. Similarly 5 (16.67%) were in experimental group and 7 (23. 34%) were in control group belongs to Christian religion.

In concern with type of family 22 (73.33%) women living as nuclear family in experimental group, 21 (70.00%) of women living as nuclear in control group. Similarly 8(6.67%) were in experimental group and 9 (30.00%) were in control group living as joint family.

In accordance with living area 25 (83.33%) women were residing in urban in experimental group, 23(76.67%) of women were residing in urban in control group. Similarly 5 (83.33%) were in experimental group and 7 (23. 33%) were in control group residing in rural area.

In concern with age at menarche 26 (86.67%) women were attained menarche in experimental group and 21 (70.00%) women were attained menarche in control group at the age group < 13 years. Similarly 4 (13.33%) women were in experimental and 9 (30.00%) women were in the age group of >13 years.

In accordance with history of menstrual cycle 25 (83.33%) women had normal menstrual cycle in experimental group and 22 (73.33%) women had normal menstrual cycle in control group. Similarly 5 (16.67%) women in experimental group and 8 (26.67%) women had irregular menstrual cycle in control group.

In relation to age at marriage 5 (16.67%) were got married in the age group of > 21 years in experimental group, 22 (73.33%) were got married in the age group of > 21 years in control group. Similarly 22 (73.33%) were from experimental and 22 (73.33%) were in control group got married in the age of 21-29 years. 3 (10.00%) of women of in experimental group and 5 (16.67%) of women in control group got married in the age group of > 29 years.

In concern with duration of infertility 5 (16.67%) women had 1-3 years in experimental group and 6 (20.00%) women had infertility in control group from 1-3 years. 12 (40.00%) were infertility in experimental group and 13 (43.33%) were infertility in control group had duration of 4-6 years. Similarly 13 (43.33%) were in experimental group and 11

(36.67%) were in control group had duration of >6 years. In relation to duration of infertility treatment 14 (46.67%) women had treatment in experimental group 12 (40.00%) women had treatment in control group from 1-3 years. 10 (33.33%) women had treatment in experimental group and 14 (46.67%) women had treatment in control group from 4-6 years. Similarly 6 (20.00%) women in experimental group and 4 (13.33%) women in control group had treatment > 6 years. In accordance with type of treatment 19 (63.33%) women undergone IVF treatment in experimental group and 14 (46.67) women undergone IVF treatment in control group. 5 (16.67%) women undergone treatment of ICSI in experimental group and 11 (36.67%) women undergone treatment of ICSI in control group. Similarly 6 (20.00%) women undergone treatment of IUI in experimental group and 5 (16.66%) women undergone treatment of IUI in control group. In accordance with previous treatment 11 (36.67%) women in experimental group and 15 (50.00%) women in control group. Similarly 19 (63.33%) women in experimental group and 15 (50.00%) women in control group had no experience of previous treatment. In concern with scheduled coitus 8 (26.67%) women in

experimental group, 6 (20.00%) women in control group felt happy. 13 (43.33%) women in experimental group and 10 (33.3%) women in control group felt unhappy. Similarly 9 (30.00%) women in experimental group and 14 (46.67%) women in control group lies in between.

The first objective of the study was to assess the pre-test and post-test level of stress among women with infertility in experimental group and control group

The pre-test level of stress in experimental group revealed that none of them had low level of stress, 13.33% of them had mild level of stress, 26.67% of them had moderate level of stress and 60.00% of them had severe level of stress. In control group, none of them had low level of stress, 23.33% of them had mild level of stress, 23.33% of them had moderate level of stress, and 53.33% had severe level of stress.

In post-test level of stress in experimental group, 46.67% of them had low level of stress, 53.33% of them had mild level of stress and none of them had moderate or severe level of stress. In control group, none of them had low level of stress, 30.00% of them had mild level of stress, 33.33% of them had moderate level of stress and 36.67% of them had severe level of stress.

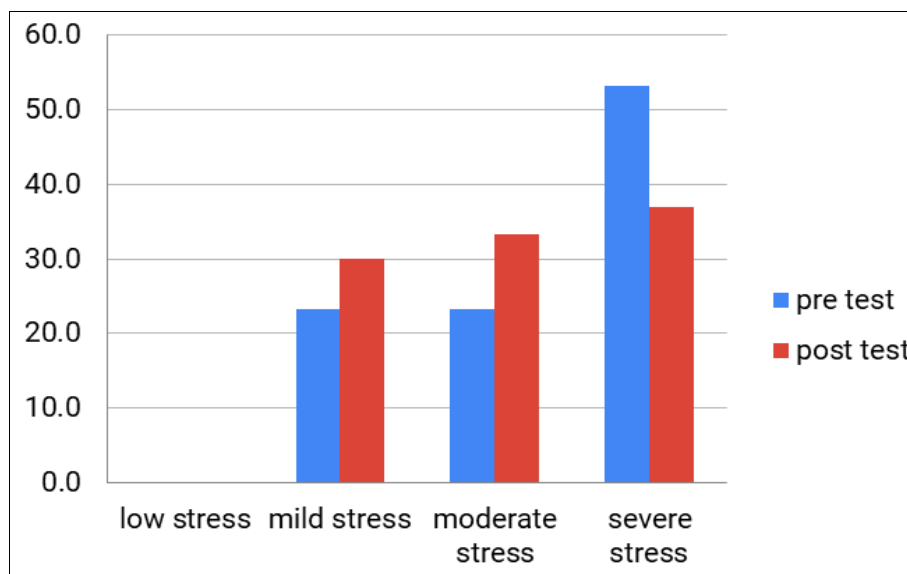


Fig 1: Frequency and percentage distribution of pre-test and post-test level of stress among women with infertility in control group

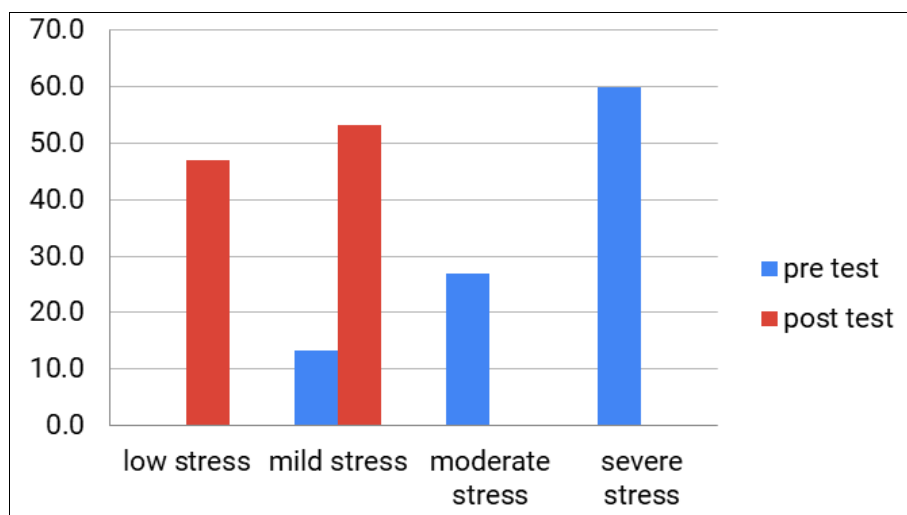


Fig 2: Frequency and percentage distribution of pre-test and post-test level of stress among women with infertility in experimental group

The second objective of the study was to find out the effectiveness of humming bee breathing technique among women with infertility in experimental group

The analysis revealed that the mean level of stress was decreased from 198.1 to 93.0 which showed marked difference of 106 and the standard deviation was decreased from 40.2 to 25.0 which showed marked difference of 15.2 followed by humming breathing technique. The paired 't' test value of 10.46 was highly significant at $p < 0.001$ level. It indicates the effectiveness of Humming bee breathing technique on stress among women with infertility.

The third objective of the study was to associate the post-test level of stress among women with infertility with the selected demographic variables

In the experimental group, there was significant association between post-test level of stress and demographic variables such as age and duration of infertility treatment with chi square value of 5.13, 6.73 at the interval of $p \leq 0.05$ respectively and duration of infertility with chi square value of 9.27 at the level of $p \leq 0.01$

There was no statistical significant association was found with other demographic variables such as educational qualification, occupation, family monthly income, religion, type of family, residential area, type of treatment, previous

treatment and scheduled coitus.

There was none of the variables were significant with the post-test level of stress among women with infertility in control group.

Table 1: Comparison of mean and standard deviation between pre-test and post-test level of stress among women with infertility in experimental group

Group	Test	Mean	SD	Paired 't' test
Experimental Group	Pre-test	198.1	40.2	14.99***
	Post-test	93.0	25.0	

*** $p < 0.001$

Table 1 represents the comparison of mean and standard deviation between pre-test and post-test level of stress among women with infertility in experimental group.

The mean was decreased from 198.1 to 93.0 which showed marked difference of 106 and the standard deviation was decreased from 40.2 to 25.0 which showed marked difference of 15.2 followed by humming breathing technique. The paired 't' test value of 14.99 was highly significant at $p < 0.001$ level. It indicates the effectiveness of Humming bee breathing technique on stress among women with infertility.

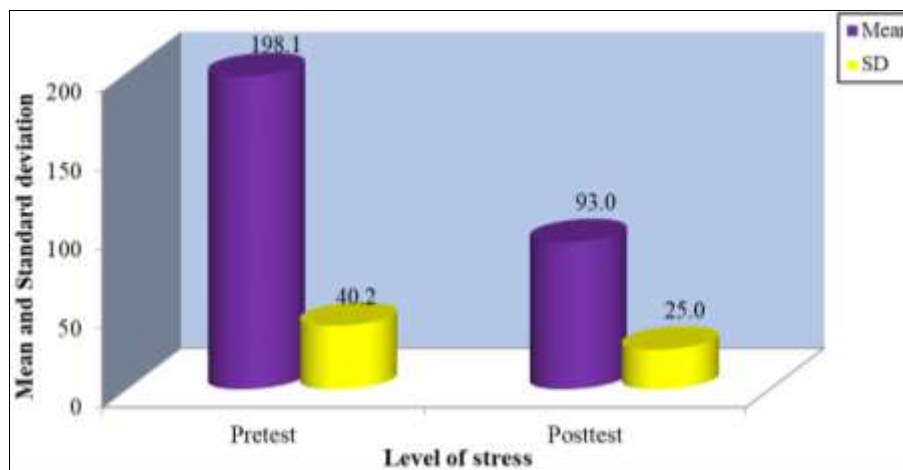


Fig 3: Comparison of mean and standard deviation of pre-test and post-test level of stress among women with infertility in experimental group

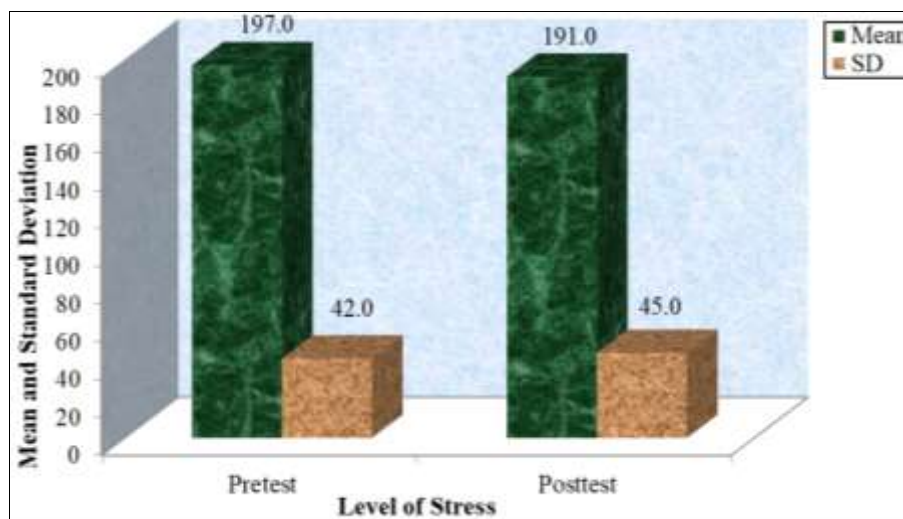


Fig 4: Comparison of mean and standard deviation of pre-test and post-test level of stress among women with infertility in control group

Table 2: Comparison of mean and standard deviation between pre-test and post-test level of stress among women with infertility in control group

Group	Test	Mean	SD	Paired 't' test
Control Group	Pre-test	197.0	42.0	0.53
	Post-test	191.0	45.0	

Table 2 represents the comparison of mean and standard deviation between pre-test and post-test level of stress among women with infertility in control group. The mean was decreased from 197.0 to 191.0 which showed small

difference of 6 and the standard deviation was increased from 42.0 to 45.0. The paired 't' test 0.53 value of was not significant at $p < 0.001$ level.

Table 3: Comparison of mean and standard deviation of post-test level of stress among women with infertility between experimental and control group

Group	Post-test			
	Mean	SD	Mean difference	Student Independent t-test
Experimental Group	92.6	24.7	105.5	10.46***
Control Group	190.7	45.0	5.83	

Table 3 represents the comparison of mean and standard deviation of post-test level of stress among women with infertility between experimental group and control group. In

post-test, the mean stress was 92.6 in experimental group and 190.7 in control group with the standard deviation 24.7 in experimental group and 5.0 in control group.

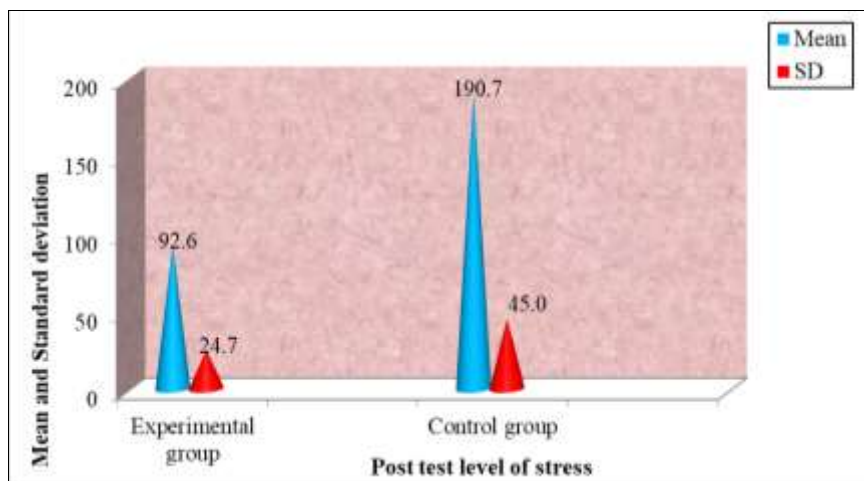


Fig 5: Comparison of mean and standard deviation of post-test level of stress among women with infertility in experimental and control group

Conclusion

The present study was conducted to assess the effectiveness of humming bee breathing technique on stress among women with infertility. The study findings showed that there was a decrease in the level of stress among the infertility women after implementing humming bee breathing technique.

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