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Original Research Article

Effectiveness of Benson relaxation therapy on prenatal anxiety among mothers in a tertiary care hospital, Kochi

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ABSTRACT

Background: The purpose of the study is to evaluate the effectiveness of the Benson relaxation therapy on prenatal anxiety among mothers.
Methods: An experimental pre-test and post-test study were conducted among 30 antenatal mothers who were admitted to antenatal wards of a tertiary-level hospital. The antenatal mothers with gestational age 28 and above, with anxiety score above 21 according to the Prenatal Anxiety Screening Scale (PASS) were included in the study, and mothers with a history of substance dependence, psychotic disorders, or any other major psychiatric disorders, and epilepsy were excluded from the study. Probability sampling was used. Data were collected after ethical clearance and informed consent. Following to the pre-test, which includes a collection of demographic data, the antenatal mothers in the experimental group received the Benson relaxation therapy. And post-test was conducted among both groups on the fifteenth day.
Results: The mean age group of the antenatal mothers were in age group of 26-33 years. 46.7% of samples have a secondary level of education. The majority (53.3%) are self-employed. Sixty percent of the mothers are primigravida. Fifty-seven percent are residing in a rural area and belong to joint family. There is a significant difference between the post-test score of the experimental and control group at the p=0.001 level. The Benson relaxation therapy is effective in reducing prenatal anxiety among antenatal mothers.
Conclusions: Benson relaxation therapy is a simple, effective and mind-body relaxation technique to relieve anxiety among pregnant women.

Keywords: Antenatal mothers, Benson relaxation therapy, Pregnant mothers, Prenatal anxiety, Prenatal anxiety screening scale

INTRODUCTION

Being a mother is the most joyful and beautiful time of a woman's life. Pregnancy and childbirth are typical physiological occurrences that every woman faces in her life, yet women face a large amount of stress.[1] Some mothers feel unnecessary distress and anxiety simply because they did not anticipate or were unaware of the usual psychological, emotional, and adjustment changes during the childbearing process. Prenatal anxiety is a prenatal woman's reaction to stress, which is induced by a pregnant mother being exposed to stress, which can be caused by stressful life events or environmental challenges. The resultant hormonal and immune system alterations in the mother may damage the fetus' immunological function and brain development.[2] Dr. Herbert Benson, M.D., the pioneer of contemporary mind-body medicine, demonstrated the relaxation response,

which causes biological changes that reduce heart rate, metabolism, and breathing rate, and bring the body back into a healthier equilibrium.[3] Several approaches for anxiety reduction have been utilised successfully in pregnancy. Benson's relaxation treatment is a relaxation technique that has been statistically proven to be better for anxiety and good adaption in the prenatal period.[4] Present study evaluates the effectiveness of Benson relaxation therapy on prenatal anxiety among antenatal mothers.

METHODS

The current study is an interventional study. The design is experimental pre-test post-test design with a control group in nature. The study recruited pregnant women hospitalised to the antenatal wards of Amrita Institute of Medical Sciences and Research Center, Kochi. The data was collected February 2021 to October 2021. The study includes antenatal mothers with a gestational age more than 28 weeks and an anxiety score greater than 21 (mild to high-level level anxiety) on the prenatal anxiety screening scale. Antenatal women with a high-risk pregnancy and a history of substance abuse, psychotic illnesses, or any other major axis psychiatric disorder, or taking anti-anxiety drugs as well as epilepsy, are not eligible for the study. Based on previous publication the sample size was calculated as 15 in each group.[5]

Around 127 antenatal women were screened with prenatal anxiety screening scale to get 30 samples. Antenatal mothers, whose prenatal anxiety score greater than 21 is recruited to study. Probability sampling with computerized random allocation was used to distribute antenatal women into control (without Benson relaxation therapy) and experimental group (Benson relaxation therapy). On the first day the investigators introduced themselves to the study participants and thereafter administered tool I and II as pre-test. Followed to pre-test the primary investigator taught Benson relaxation therapy to the experimental group only on the same day. It was practiced three times day (morning, noon, afternoon) before food under the supervision of the primary investigator for 15 days by the experimental group. On day-16, both experimental and control group underwent post-test.

Benson relaxation therapy

Benson's relaxation therapy is introduced by Dr. Herbert Benson.[4] It is a form of meditation which is mainly focused on breathing. This is done by the following methods.

The present study proposal got ethical clearance from Institutional Ethics Committee of parent Institution. Informed consent was obtained from the participants. Descriptive analysis was done for baseline variables. Chi - square test was done to find association between prenatal anxiety and baseline variables. Independent sample t test was applied to compare the difference in anxiety from pre to post in between case and control group.

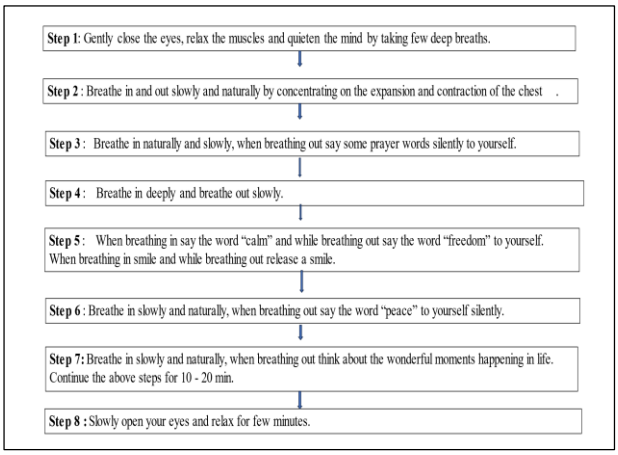

Figure 1: Steps of Benson relaxation therapy.

RESULTS

One twenty-seven antenatal women with gestational age more than or equal to 28 weeks are screened to get 30 antenatal mothers with mild to severe anxiety. Their demographic variables are depicted in Table 1.

Table 1: Distribution of antenatal mothers based on demographic variables.

Individual characteristics	Control group (n1 = 15)		Experimental group(n2 = 15)	
	Frequency(f)	Percentage (%)	Frequency(f)	Percentage (%)
Age of antenatal women				
18-25 years	06	40	08	53.3
26-33 years	07	46.7	06	40
34-41years	02	13.3	01	6.7
Educational status				
High school	04	26.7	02	13.3
Secondary education	06	40	08	53.3
Graduate	05	33.3	04	26.7
Post-Graduate	00	0	01	6.7
Occupational status				
Unemployed	01	6.7	00	0
Self employed	08	53.3	07	46.7

Continued.

Individual characteristics	Control group (n1 = 15)		Experimental group(n2 = 15)	
	Frequency(f)	Percentage (%)	Frequency(f)	Percentage (%)
Government employed	01	6.7	04	26.7
Private employed	02	13.3	02	13.3
Others	03	20	02	13.3
Parity				
Primi Gravida	09	60	09	60
Multi Gravida	06	40	06	40
Education of spouse				
Primary education	01	6.7	00	0
High school	03	20	03	20
Degree	08	53.3	08	53.3
Post-graduation	03	20	04	26.7
Occupation of spouse				
Self employed	05	33.3	05	33.3
Private employee	07	46.7	07	46.7
Government employee	03	20	03	20
Area of residence				
Rural	10	66.7	07	46.7
Urban	05	33.3	08	53.3
Type of family				
Nuclear family	06	40	07	46.7
Joint family	09	60	08	53.3

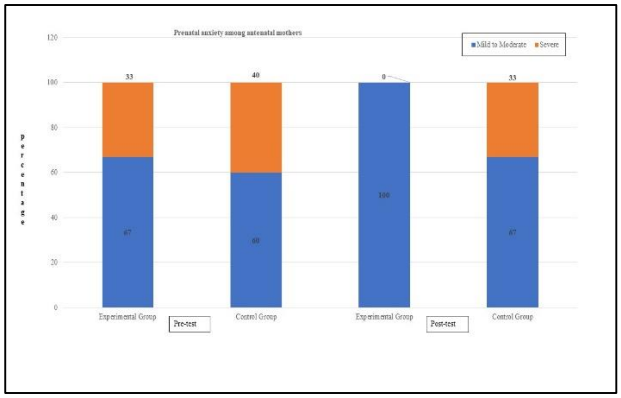

Figure 2: Prenatal anxiety among antenatal mothers.

Prenatal anxiety among antenatal mothers

During pre-test, majority of antenatal mothers in both experimental and control group had mild to moderate anxiety. On post-test the anxiety score of experimental group became reduced but that for control group remains as the same.

From Table 2, it is evident that there was a substantial difference in anxiety levels between pre-test and post-test scores in the experimental group after implementing Benson relaxation therapy.

From Table 3, it is evident that only one variable "occupation of spouse" is associated with level of prenatal anxiety.

Table 2: Comparison of mean pre-test and post-test score of prenatal anxiety score among control group and experimental group (n1=n2=15).

		Mean±SD			
Group	**n**	**Pre-test**	**Post-test**	**t value**	**P value**
Control	15	39.13±6.92	38.73±7.28	22.08	0.442
Experimental	15	43.93±5.93	26.33±2.19		0.000*

*Significant

Table 3: Association between prenatal anxiety and demographic variables (n1=n2=15).

Variables	N	χ^2	P-value
Age in years	14	1.038	0.595

Continued.

Variables	N	χ^2	P-value
18-25 years	13		
26-33 years	03		
34-41years			
Educational status			
High school	06	3.413	0.079
Secondary education	14		
Graduate	10		
Occupational status			
Self employed	16		
Government employed	05	0.814	0.079
Private employed	04		
Others	05		
Parity			
Primi Gravida	18	0.814	0.079
Multi Gravida	12		
Education of spouse			
High school	10		
Degree	14	3.239	0.12
Post-graduation	06		
Occupation of spouse			
Self employed	10		
Private employee	14	7.485*	0.0024
Government employee	06		

*Significant p value <0

DISCUSSION

The present study result interpreted that the level of prenatal anxiety among antenatal mothers who received Benson's relaxation therapy was significantly higher than the mothers in control group.

The result of the present study is supported by a quasi-experimental study was conducted by Jemy Mercy in the year 2014. Thestudy found Benson relaxation method is effective on distress and coping among 30 high-risk mothers at Sri Ramachandra Hospital in Chennai.[5] Another study by Simi Paramban et al also consistent with the current study results.[6]

While examining the association of the present study shows that out of eight variables only one variable that is spouse occupation shows significant association with pre-test prenatal anxiety score significant at the level p = 0.0024.

In contrast with the results Ali NS (2013) conducted a hospital based cross sectional study on the frequency and associated factors for anxiety and depression in pregnant women with sample size of 165 antenatal women selected hospital Pakistan. Out of 165 pregnant women about 70 percent of them were anxious. Prenatal anxiety was associated with husband unemployment (p = 0.003), lower economic status (p = 0.0027), having 10 or more years of formal education (p = 0.002), a first (p = 0.002) and an unwanted pregnancy (p <0.001).[7]

The present study has limited to a sample size of thirty and the antenatal mothers were recruited into the study during their third trimester only.

CONCLUSION

Anxiety disorders are common during the pregnancy period and have a significant impact on quality of life. Relaxing reduces anxiety and is vital in physiological, psychological, and social function. The study sought to determine the efficacy of Benson relaxation therapy on anxiety in pregnant women. Present study demonstrates that Benson relaxation therapy is beneficial in lowering anxiety among pregnant women. As a result, it concludes that this intervention is simple, effective, and takes a mind-body-spirit approach to healing.

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Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee (IRB-AIMS-2019-254)

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