

The effect of Cognitive Behavior Therapy and Yoga Therapy for Pregnant Women

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Abstract

The present article highlights the effect of cognitive behavior therapy and yoga therapy for pregnant women by understanding the current scenario of Indian health system. The sample was a group of primi gravidas (women undergoing first pregnancy) from third month till the date of delivery. A scale to measure the pregnancy wellbeing was constructed for the study by the investigator. In that study there were 72 items related to the pregnant women's wellbeing. These 72 items were developed by the investigator. The scale focused the demographic variables of respondents namely age, qualification, occupation, nature of work, hours of work, income, religion, nativity and nature of family structure. The reliability of the scale was Cronbach's alpha reliability $r=0.59$, by parallel method of reliability $r=0.61$ and using split-half method reliability is $r=0.62$. In the Tamil version the reliability was found to be 0.81. Hence purposive sampling method was adopted. Of the 450 pregnant women who attended the counseling session and answered the scale 290 had a high score in perceived the well-being and 160 pregnant women scored low. Out of 160, 106 pregnant women gave willingness and they formed the "experimental and control group," during the intervention program. In control group, there were 18 samples for yoga therapy, 15 samples for cognitive behavior therapy, 20 samples for yoga therapy and cognitive behavior therapy. The same number of samples in the respective group was taken as experimental group. The intervention programs include the introduction on parent craft, explanation of conception, week by week growth of the fetus, symptoms of pregnant women, problems faced by pregnant women, positive steps to follow, video on delivery (normal/ caesarean), with power point presentation, 'change view', queries, group discussion, homework and follow ups. In yoga therapy, 15 sessions consisting of pranayama, dhyana, yoga nidra and dynamic breathing exercises were conducted. Results showed that there was a significant difference between pre-post experimental groups in their perceived level of wellbeing in pregnant women.

Keywords Primi gravidas; Cognitive behavior therapy; Yoga therapy; Pranayama; Dhyana; Yoga nidra; Parent craft

Introduction

A woman's pregnancy, starting from conception, up to delivery can be a stressful one due to various physiological, psychological, emotional, superstitious beliefs, economic condition etc. All cultures emphasize the fact that the expectant mother's well-being is an absolutely necessary condition for the well-being of the baby. It can be a great emotional experience. The physical and psychological aspects cannot be separated. For most women, labour is a time of apprehension, of fear and agony. But, with proper antenatal preparation the majority of women can have a labour that is easy and painless or almost painless and some can actually enjoy the labour and experience a sense of fulfillment.

Pregnancy is not a disease. It is an ideal environment to give new life to the baby. At the time of pregnancy, the mother should be more positive and relaxed. Cognitive behavior therapy helps to organize the thoughts in the positive way. In addition, yoga therapy helps to relax the mind, as well as strengthen the body.

A woman's pregnancy, starting from conception, up to delivery can be a stressful period due to various reasons such as physiological, psychological, and emotional conditions, coupled with superstitious beliefs, economic conditions, family traditions etc. All cultures emphasize the fact that the expectant mother's well-being is an

absolutely necessary condition for the well-being of the baby. She needs to be enlightened about her fears, encouraged to adopt the right perspective and emboldened to face pregnancy. This is possible by cognitive behavior therapy and yoga therapy.

The review of literature indicates a significant improvement in the well-being of pregnant women after implementing a suitable intervention programme. Biernacka et al. (2007) [2] conducted the study on Occupation-related psychosocial factors in pregnancy and risk of pre-term delivery. The study concluded that the obtained data indicate the need to evaluate stress at work in groups of occupationally active pregnant women as well as to select more thoroughly work posts for this group of employees. It is studied that the pregnant women's experiences of psychological distress. This study focused on exploring pregnant women's experiences of antenatal depression and anxiety. The study concluded that mild-moderate psychological distress that is insufficient for referral to the mental health services may be significant for some women in pregnancy.

For conducting the intervention program, the meeting held with the gynecologist and the administration of the concerned hospital marked the initial procedures, in which, the therapist presented the significance and necessity of the intervention program. The gynecologist and management showed keen interest in the area and granted permission to conduct the intervention program for pregnant women. Primi gravidas (undergoing first pregnancy) with normal, healthy conditions pregnant women were selected. The life partners were also requested to participate for cognitive behavior therapy in

hospital to enhance understanding and training in the intervention program. The participants seemed curious about the program and showed interest when the highlights of the program were discussed. Timings and dates were decided depending on their availability.

The investigation adopted an experimental design, described as “Pre- Post Experimental design with Control Group”. The sample was a group of primi gravidas (women undergoing first pregnancy) from third month till the date of delivery. Hence purposive sampling method was adopted. Of the 450 pregnant women who attended the counselling session and answered the scale 290 had a high score in perceived the well-being and 160 pregnant women had a low score in perceived the well-being. The samples with high scored in perceived well-being were excluded in this study. So, the investigator selected only 160 pregnant women who had a low score in the perceived well-being of pregnant women. Out of 160, 106 pregnant women gave willingness and they formed the “experimental and control group,” during the intervention program. The intervention program was administered to 106 samples. In experimental group, there were comprised of 20 samples that were willing to participate in cognitive behavior therapy and yoga therapy. They were formed the group -I. Group -II consist of 15 samples they were given cognitive behavior therapy and 18 samples formed the group-III, they were given yoga therapy. The same number of samples in the respective group was taken as control group.

A scale to measure the perceived Well-being of pregnant woman was constructed by the researcher for the fulfillment of objectives of the study. Birth order, Age group, Religion, Nativity, Qualification, Occupation, Nature of work, Hours of work, Income, Family structure, Number of family members, Consanguinity, Family illness, Physical illness, Period of conception were the demographic details of the sample, which also included. The tool was administered to the experimental and control groups. The tool was in the version of both Tamil and English. There are 72-items related to the Well-being of the

pregnant woman. The tool emerged based on the opinion of researchers, academicians, gynecologist, mothers, pregnant women and other experts in the field of investigation. It has helped to identify the items related to measure the wellbeing of pregnant woman. The scoring for the tool was computed on a 5-point scale ranging from 0- Never, 1-Rarely occurs, 2-Sometimes, 3-Most of the time, 4-Always. There were 72-items related to the Well-being of the pregnant woman. Cronbach’s alpha reliability 0.59, parallel form method of reliability 0.61, split-half method reliability is 0.62. Content validity was established with the opinion of experts in the field of investigation. Correlation of coefficient was found to be 0.81 between the English and Tamil version.

Intervention Programme

The intervention programme was intended to provide a holistic approach to improve the wellbeing of pregnant women. The intervention programme was implemented for a period of 8 months and the following sessions were allotted for the intervention program and each session being conducted for 2 hours during weekdays.

- Cognitive behavior therapy and yoga therapy- 25 sessions
- Cognitive behavior therapy - 10 sessions
- Yoga therapy - 15 sessions

Dobson, 2000, Master et al 1987, Beck 1995 [1,5] model for helping pregnant women, the current researcher devised an innovative, intentional, empirical model appreciated by the hospital and the gynecologist readily referred pregnant women for the intervention

Cognitive behaviour therapy for alliviating the concerns of pregnant women

Concerns	Person education	Goal setting	Therapy	Self-efficacy in front of the mirror
Worry about pregnancy, anxious about delivery, sex of the baby, laziness, food intake, fear about safe delivery, feeling of low, mood swings, worry about growth of the baby, dissatisfaction- weight gain or loss, Constipation, breast changes, weak or tiredness, worry about discharge from private parts, unreasonable hunger, swelling feet, difficulty in breathing, urinary infection, loss of appetite and emotional problems like Friction in the relationship between in-laws and partner, worry about features of the baby, fear about medical report, body structures, body growth, health related problems, more information about pregnancy, back pain, weight gain after delivery, frequent vomiting, position of the baby, fetal movement	Flash card, paper, pencil, sheets of papers, perception card, alternate therapy information, with power point presentation, change view, nutrition, week growth and delivery videos.	Irrational thoughts of problems has to change as rational thoughts of well being	Role play, homework, diary, self-talk, talk therapy, active listening, systematic desensitization, exposture/ response prevent, relaxation, positive reinforcement, cognitive modification, assertive training, stress management and problem solving	I am alright now, my baby is alright. My baby and I are healthy and my baby is growing. I will have a safe delivery. My baby's growth will be good. I will regain my body structure after deliver and I shall maintain my body structure. I will deliver my baby at the time of delivery.

Table 1: Cognitive Behavior Therapy for Alliviating the Concerns of Pregnant Women

Iyenkars (2002) [7] model for helping pregnant women, the current researcher devised an innovative, intentional, empirical model appreciated by the hospital and the gynecologist readily referred pregnant women for the intervention.

To maintain structure and facilitate easy administration of the process, the comprehensive programme was divided into five spheres,

namely: chanting, pranayama, dynamic breathing exercises, dhyana, yoga nidra.

The effect of cognitive behavior therapy and yoga therapy

Groups	N	Mean	SD	MD	SE	t-value
a) Pre-Test						
Control	20	177.70	12.753	0.350	2.852	0.080
Experimental	20	177.35	14.936			
b) Experimental						
Pre-Test	20	177.35	14.936	18.270	5.315	3.43
Post-Test	20	195.62	18.932			
c) Control						
Pre-Test	20	177.35	14.936	0.700	4.634	0.151
Post-test	20	178.05	14.365			
d) Post-Test						
Control	20	178.05	14.365	17.57	5.239	3.353
Experimental	20	195.67	18.932			

Table 2: The effect of cognitive behavior therapy and yoga therapy

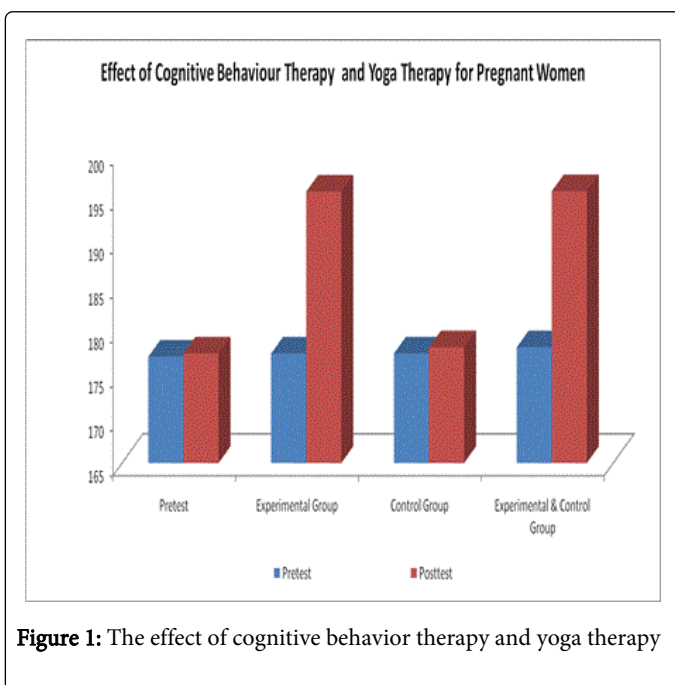


Figure 1: The effect of cognitive behavior therapy and yoga therapy

The obtained t value is found to be 0.080. This indicates that there is no significant difference between experimental group -I and control group-I pre-test scores of perceived Well-being of pregnant women among the cognitive behavior therapy with yoga therapy.

Hence, the stated Hypotheses (Ho 2.a.) that, 'There will be no significant difference between experimental group -I and control

group-I pre-test scores of perceived Well-being of pregnant women among the cognitive behavior therapy with yoga therapy "is accepted.

A paired sample t-test was conducted to compare scores pre-test and post-test intervention. There was a significant difference in the scores for the pre test (M=177.35 S.D=14.936) and post test (M=195.62 S.D=18.932) conditions.

From the above table it can be see that a significant difference was found with the pregnant women scoring higher on well-being in the post test compared to the pre test of experimental group-I, with the t score=3.43, being significant at the 0.01 level.

This result suggest the when the group was subjected to intervention program their scores on well-being improved. Thus the hypothesis (2.b.) stated that, "There will be a significant difference between pre-test and post-test scores of perceived Well-being of pregnant woman among the experimental group-I" is accepted.

The obtained t value is found to be 0.151. This indicates that there is no significance difference pre-test and post-test scores of control group-I of perceived Well-being of pregnant women among the cognitive behavior therapy with yoga therapy.

Hence, the stated Hypotheses (2.c.) that, 'There will be no significant difference between pre-test and post-test scores of perceived Well-being of pregnant women among the cognitive behavior therapy with yoga therapy control group -I, "is accepted.

A paired sample t-test was conducted to compare scores experimental and control group-I post-test scores intervention. There was a significant difference in the scores for the control group-I (M=178.05 S.D=14.365) and experimental group-I (M=195.67 S.D=18.932) post-test intervention.

From the above table it can be seen that a significant difference was found with the pregnant women scoring higher on well-being in the experimental group compared to the control group after intervention, with the t score=3.353, being significant at the 0.01 level.

This result suggests that when the group was subjected to intervention programme their scores on well-being improved. Thus the hypothesis (2.d.) stated that, "There will be a significant difference between experimental group-I and control group -I post-test scores of perceived well-being of pregnant women." is accepted.

The same method was adopted in the experimental and control groups II & III.

Groups	N	Mean	SD	MD	SE	t-value
a) Pre-Test						
Control	15	178.67	13.789	2.467	5.090	0.485
Experimental	15	181.13	14.090			
b) Experimental						
Pre-Test	15	181.13	13.789	15.110	5.443	2.77
Post-Test	15	196.24	16.835			
c) Control						
Pre-Test	15	178.67	14.090	0.467	45.131	0.091
Post-test	15	179.13	14.015			
d) Post-Test						
Control	15	196.27	16.835	17.11	5.475	3.12
Experimental	15	179.13	14.015			

Table 3: The effect of cognitive behavior therapy

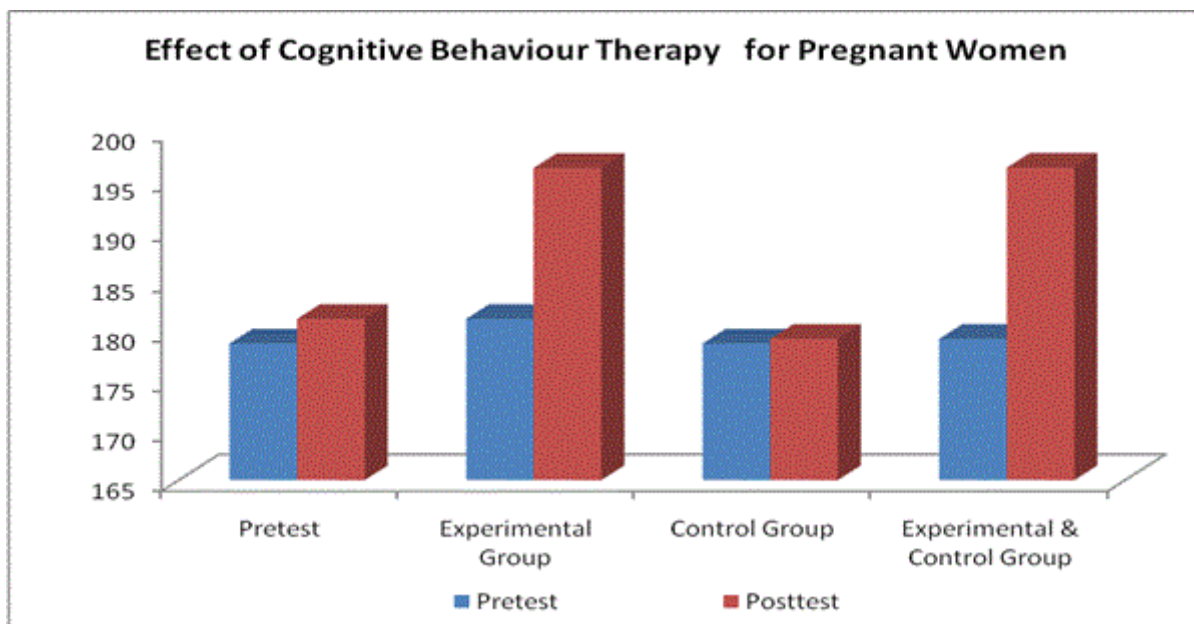


Figure 2: The effect of cognitive behavior therapy

Groups	N	Mean	SD	MD	SE	t-value
a) Pre-Test						
Control	18	176.89	14.062	1.833	3.289	0.393
Experimental	18	175.06	13.922			
b) Experimental						
Pre-Test	18	176.89	14.062	16.03	6.100	2.67
Post-Test	18	192.92	16.723			
c) Control						
Pre-Test	18	175.06	13.922	0.111	3.281	0.024
Post-test	18	175.17	13.639			
d) Post-Test						
Control	18	192.17	16.723	17.57	6.027	2.943
Experimental	18	175.17	13.639			

Table 4: The effect of yoga therapy.

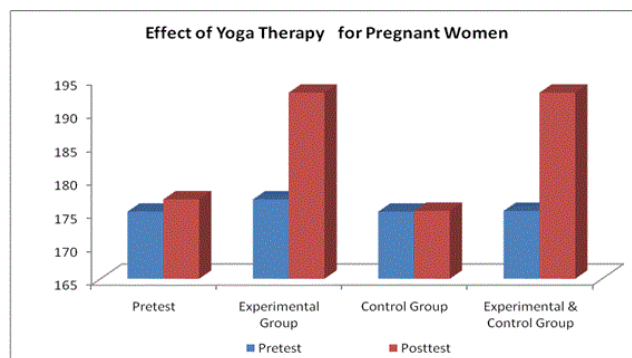


Figure 3: The effect of yoga therapy.

At the time of pregnancy, the mother should be more positive and relaxed. Cognitive behavior therapy helps to organize the thoughts in the positive way and yoga therapy helps to relax the mind, as well as strengthen the body. This was possible by giving cognitive behavior therapy and yoga therapy.

In the western countries, the pregnant woman attends counseling sessions along with her husband and gains knowledge regarding the physiological, psychological and emotional changes, gets special attention and knowledge about the economic commitment and tension free delivery which is required for a healthy baby. They are well equipped for a normal labour with proper safety. Whereas, the scenario is entirely different in our country factors like People's fears, superstitious beliefs and lack of knowledge cause enormous stress for the pregnant women. In order to manage or reduce their physical or mental imbalance, the behavioral intervention program is a boom to the pregnant women. Further, the part of behavioral intervention program of cognitive behavior therapy and yoga therapy can help to alleviate accumulated fears and prepare them for the healthy and safe labor.

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