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A study to assess the effectiveness of benson's relaxation therapy on stress and coping among mothers with high risk pregnancy admitted at antenatal wards of sri ramachandra hospital

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ABSTRACT

High risk pregnancy is a condition which can affect the health of mother and baby. High risk pregnancy results in longer hospitalisation which leads to increased stress and decreased coping mechanisms in the mother. Relaxation techniques are simple and cost effective methods which help in reducing stress and enhancing coping. Benson's relaxation therapy can reduce the stress level and thereby improve coping ability among mothers with high risk pregnancy. A pre-experimental study was taken up in Sri Ramachandra Hospital, Chennai to assess the effectiveness of Benson's Relaxation Therapy on stress and coping among mothers with high risk pregnancy. The sample included 30 mothers with high risk pregnancy. The findings of the study depicted the evidence of significant difference between pre and post test values of stress and coping. There was a statistically significant difference in the stress and coping scores after the intervention at the level of $p<0.001$. When stress decreases coping among mothers with high risk pregnancy increases. This highlights the effectiveness of Benson's relaxation therapy in reducing the level of stress and enhancing coping among mothers with high risk pregnancy.

Keywords: Stress, coping, Benson's relaxation therapy, mothers with high risk pregnancy

INTRODUCTION

Being a mother is the happiest moment in a woman's life, but every pregnancy may not always progress smoothly. Sometimes it can be complicated by medical conditions or any other health problem and termed "high risk." A high risk pregnancy is defined as "one in which the life or health of the mother or fetus is jeopardized by a disorder coincidental with or unique to pregnancy" (Lowdermilk, 2010). High risk mothers should be identified early to ensure prompt vigilance, proper attention, extra care and follow up to prevent perinatal and neonatal mortality.

Worldwide about 1000 women die each day due to complications during pregnancy and childbirth because of four major causes such as postpartum haemorrhage, infections, hypertensive disorders, and unsafe abortion. In India the perinatal mortality rate is 46 per 1000 live births and mothers falling in the high risk category contributes to 70%-80% of perinatal mortality (Samiya & Samina, 2008).
A woman who is diagnosed to have a high risk pregnancy has diverse psychological responses as anxiety, low self esteem, guilt, frustration, and inability to function apart from the normal stresses of

day to day life. Stress can lead to decrease coping ability. Proper coping mechanism for the stress is necessary for a pregnant woman to safeguard the health of both mother and baby (Holley, 2010).

Relaxation techniques are powerful tools for coping with stress and promoting long term health in mothers with high risk pregnancy by slowing down the body and quietening the mind. Benson's relaxation therapy is a meditative technique which was pioneered by the Physician Herbert Benson during 1970's and it is based on his observation that the relaxation therapy produces a single "relaxation response," characterized by diminished sympathetic arousal. It trains the individuals daily to enhance the relaxation by improving the mood, bringing down blood pressure and stressful events in life (Marty, 2008).

The investigator from her personal experience during her clinical posting identified that many antenatal mothers were diagnosed with high risk pregnancy and were admitted. During the interaction with the mothers she identified that the antenatal mothers were stressed and they didn't know the ways to cope with the situation. So the investigator decided to take up this study to find out the effectiveness of Benson's relaxation therapy to reduce stress and enhance coping.

Objectives
The objectives of the study are to,
- Assess the level of stress and coping among mothers with high risk pregnancy
- Determine the effectiveness of Benson's Relaxation Therapy on stress and coping among mothers with high risk pregnancy
- Identify the relationship between stress and coping among mothers with high risk pregnancy.
- Associate the level of stress and coping with selected background variables among mothers with high risk pregnancy.

Hypotheses
H_1: There is a significant difference in the level of stress among the mothers with high risk pregnancy subjected to the Benson's relaxation therapy than those who do not

H_2: There is a significant difference in the level of coping among the mothers with high risk pregnancy subjected to the Benson's relaxation therapy than those who do not.

The key terms taken up for research were operationally defined. Stress is a condition which depicts the person's response to changes in the normal balanced state. Coping is the ways of adjustment to stress of mother who has high risk pregnancy. Benson's relaxation therapy is a breathing exercise which involves deep breathing in and breathing out slowly and uttering "one" silently and repeating it continuously over 20 minutes; performed twice in the morning and evening for 14 days. For the first seven days performance was under the supervision of investigator and next seven days mother with high risk pregnancy performed by self with telephone reminder every two days once. High risk pregnancy includes mothers with the conditions such as pregnancy induced hypertension, gestational diabetes mellitus, antepartum haemorrhage, preterm labour, heart diseases, age over 35 years, multiple pregnancies and infections in between 24-34 weeks of gestation.

Conceptual framework
The investigator has adopted Roy's adaptation theory as a base for developing the conceptual framework for this study. In this study, the mothers with high risk pregnancy are considered as the open adaptive system. The system consists of three components-input, throughput and output. Input is the stimuli which can come from the environment or within a person. In this study the stimuli is the high risk pregnancy within the mother, from the environment age, education, occupation, income, type of family, area of residence, social support, sources of health information, obstetric variables like gravida, parity, type of previous delivery, history of high risk pregnancy and sleep hours during night.

Throughput is the interaction between the mother and the investigator, identifies the high risk problem of mother and demonstrates Benson's relaxation therapy for 20 minutes, twice a day for two weeks. This improves the interpersonal relationship, increases self esteem, reduces stress and help the person to cope with the situation.

Output is the reduction in the level of stress, increased perception of wellness and improved

coping ability leading to adaptive behaviour in the mother by the use of coping mechanism. It provides feedback for the system.

Methodology

The research approach adopted for the study was evaluative approach with Pre experimental "One group Pretest – Post test only design". The study was conducted in the New Block Antenatal ward of Sri Ramachandra Hospital, Porur, Chennai. The population included the mothers admitted with high risk pregnancy between 24 to 36 weeks of gestation. The sampling technique used was convenient sampling. The sample consisted of 30 mothers who satisfied the inclusion criteria. Mothers who had complications of high risk pregnancy and who were already practicing relaxation techniques were excluded from the study.

Data collection instruments: Based on the literature, tools were identified to be precise enough to measure the outcome variables for the study. The tool consists of two sections: Section A - demographic and obstetric variables, Section B – Perceived stress scale ($r = 0.85$) and Jalowiec & Powers coping scale($r = 0.96$) were used to assess the level of stress and coping in samples.

FIGURE 1.Schematic Representation of Data Collection Procedure
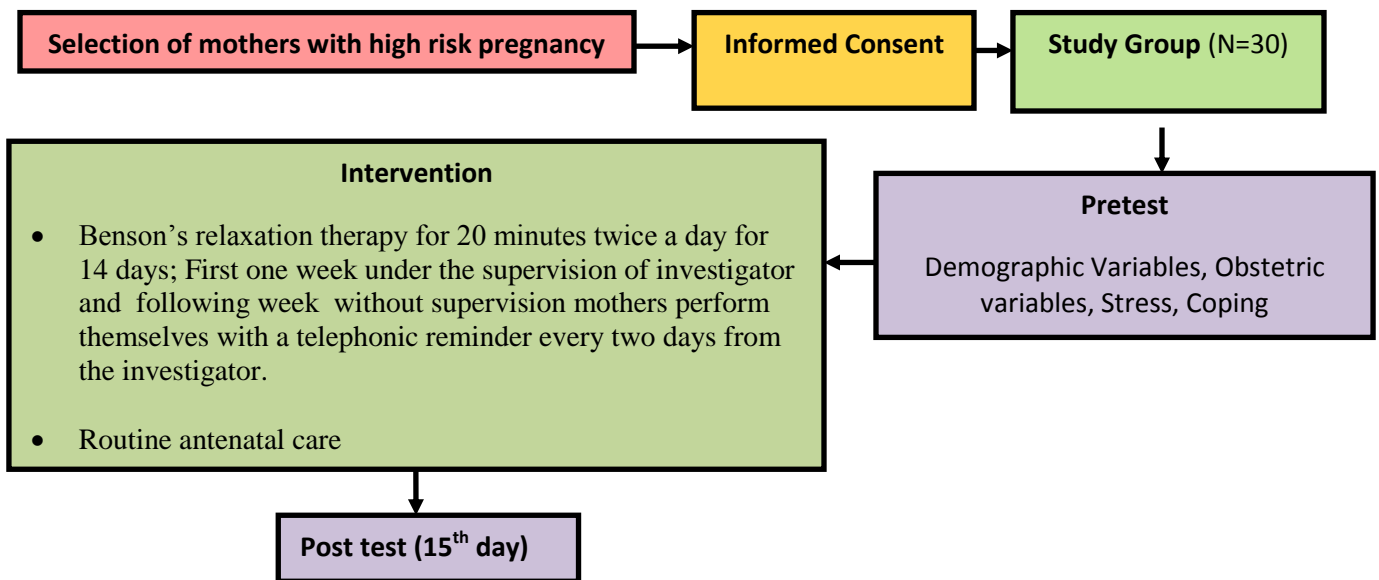
Discussion

Analysis and interpretation of study findings

The data obtained were analyzed using descriptive and inferential statistics. The significant findings of the study are presented below on the level of stress and coping during pretest and post test.

Section A: Description of the population

Most of the mothers were in the age group of 26-30 years, 14(46.7%) and nine (30%) were in the age group of 26-30 years. The education level showed that 13(43.3%) mothers had completed high schooling and 12(40%) had higher secondary education. Majority of the mothers 26(87%) were housewives and four (13%) were employees.

Among the obstetrical variables, considering the gravida of the mother, 18(60%) were primigravidae and 12(40%) were multigravidae. With regard to parity 19(63.4%) mothers were nulliparous, 10(33.3%) were primiparous and 1(3%) was multiparous. 14 (46.7%) mothers were between gestational age 30 to 32 weeks and 11(36.7%) between 32 to 35 weeks. The high risk problem encountered by the mothers were pregnancy induced hypertension two (6.7%) and gestational diabetes mellitus one (3.3%).

Section B: Assessment of stress and coping among mothers with high risk pregnancy
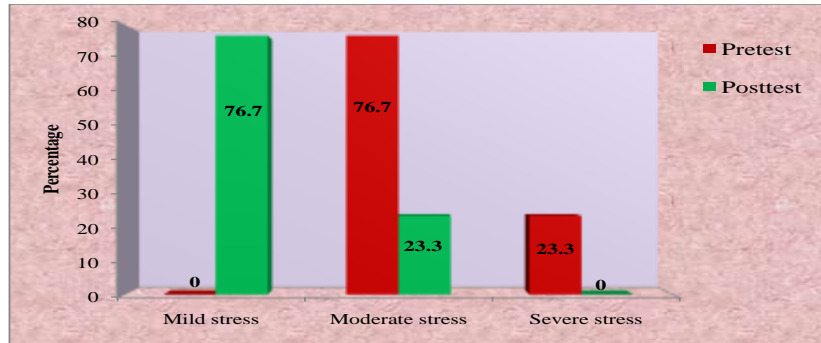

Figure 2 . Percentage distribution of level of stress among mothers with high risk pregnancy during pretest and posttest(N =30)

The figure 2 shows that moderate level stress was experienced by 23(76.7%) during pretest and 7(23.3%) during post test. Severe level of stress was experienced by only seven (23.3%) during post test. After the intervention the stress level reduced and mild stress was experienced by 23(76.7%) mothers.
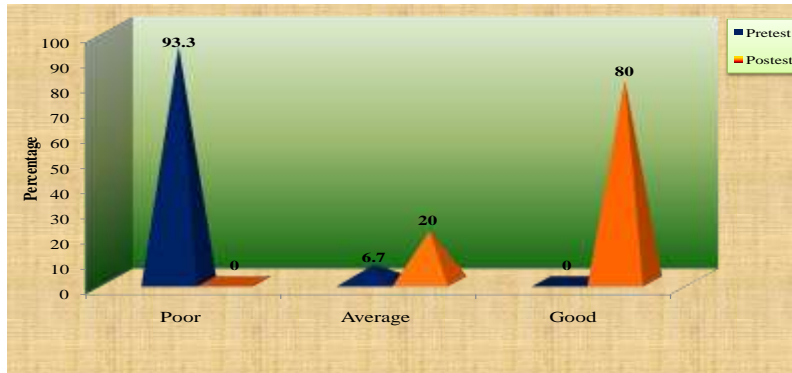

Figure 3 . Percentage distribution of level of coping among mothers with high risk pregnancy during pretest and posttest(N =30)

Figure 3.highlights that poor coping was experienced by 28(93.3%%) during pretest. Average coping was experienced by only two (6.7%) during pretest and six (20%) during post test. After the intervention the coping improved and good coping was experienced by 23(76.7%) mothers.

Section C: Comparison of stress and coping scores before and after intervention

Table 1. Mean and standard deviation of stress and coping scores

Variables	Pre test		Post test	
	Mean	SD	Mean	SD
Stress	26.9	2.6	9.97	1.09
Coping	47	2.9	75.70	4.99

Table 1. depicts the pretest mean stress score was 26.90 with standard deviation of 2.604 and the post test mean was 9.97 with standard deviation of 1.098.

The pretest mean coping score was 47.00 with standard deviation of 2.983 and the post test mean was 75.70 with standard deviation of 4.99.

Table 2. Mean difference, standard deviation, paired 't' and p value of stress and coping scores

Variables	Mean difference	S.D	Paired 't' and p value
Stress	16.9	2.5	37.7
			0.000***
Coping	-28.7	5.4	29.12
			0.000***

*** = p<0.001

Table 2. illustrates the comparison of stress and coping scores among mothers with high risk pregnancy before and after intervention. The mean difference of stress between pretest and post test was 16.933 with standard deviation 2.463 and that of coping was 28.700 with standard deviation 5.396.There was statistically significant difference in the stress and coping scores after the intervention at the level of p< 0.001.This highlights the influence of Benson's relaxation therapy in reducing the level of stress and enhancing coping among mothers with high risk pregnancy.

Table3. Correlation between stress and coping among mothers with high risk pregnancy during pretest and post test

Stress	Coping	
	Pretest	Post test
	r = -0.178	r = -0.518
	p=0.348	p=0.003**

** = p<0.01

Table3. illustrates that there was a weak negative correlation between stress and coping in pretest with 'r' value of -0.178 which indicates that as stress increases coping decreases. Similarly there was moderate negative correlation between stress and coping in post test with 'r' value of -0.518. This highlights that when stress decreases coping among mothers with high risk pregnancy increases. Hence, Benson's relaxation therapy helps in reducing stress thereby enhancing coping.

Section D: Association of stress and coping scores with selected demographic and obstetric variables

There was significant association of stress and coping during post test with parity and occupation at the level of p<0.05.

CONCLUSION

Benson's relaxation therapy serves as a resource for improving maternal psychological health by reducing stress and enhancing coping in mothers with high risk pregnancy. Mothers were able to practice therapy with encouragement, education and assistance from nurses. Continuing nursing education programs could be conducted to enhance nurse's knowledge and skill in providing competent care for those women who experience stress due to various causes and decreased coping ability at hospitals and in the community settings.

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