

Effectiveness of Empowerment Programme on Stress and Coping among Antenatal Mothers with Hypertensive Disorders of Pregnancy

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Abstract: *This study assesses the impact of an empowerment programme on stress and coping in antenatal mothers with hypertensive disorders. Conducted at Govt. Medical College Hospital, Kottayam, the study involved 60 patients, and used quantitative approach. The results revealed a significant influence of the empowerment programme on stress and coping among the participants.*

Keywords: Stress; Coping; empowerment programme; antenatal mothers with hypertensive disorders of pregnancy.

1. Introduction

Pregnancy and mother hood are special events in women lives. Pregnancy is a stressful period, too much stress can lead to health problem for both mother and baby. Hypertensive disorders of pregnancy are important causes of maternal and fetal morbidity and mortality. It is believed that 10 - 15% of maternal mortality in developing countries is due to hypertensive disorders of pregnancy.¹

Pregnancy is a physiological event, which can cause stress and anxiety in the mother due to neuroendocrine, physical, psychological, and social changes. Complications of stress during pregnancy, delivery, and lactation include abortion, nausea, vomiting, preeclampsia, weight loss, preterm labor, low birth weight, episiotomy infection, postpartum depression and increased probability of elective or emergency caesarean section. Thus the need for maternal psychological adjustment using coping strategies is important.²

2. Literature Survey

Stressors that influence women during their lives especially during pregnancy have effect on their physical, spiritual and emotional status. Relaxation techniques such as breathing exercises can lower stress levels and help to stabilize blood pressure. Nurses have an important role to play in health promotion for the pregnant women who suffer from hypertension. Lifestyle modification, relaxation techniques and coping mechanism are the non - pharmacological intervention that nurses teach to women during child birth preparation in patients with hypertensive disorders during pregnancy.³

A study was conducted in University Women's Hospital of Basel, Switzerland to evaluate the effects of applied relaxation in reducing anxiety and stress in pregnant women. The findings suggest beneficial effects of relaxation on reducing perceived stress as well as increment of sense of control in pregnant women.⁴

A Study was conducted to evaluate the effects of progressive muscle relaxation and guided imagery on the gestational hypertension among antenatal mothers in Iran. Finding of study shows that physical and mental relaxation is effective for the decrease of the systolic and diastolic blood pressure during pregnancy and it is suggested as a treatment for gestational hypertension.⁵

3. Problem Definition

Effectiveness of empowerment programme on stress and coping among antenatal mothers with hypertensive disorders of pregnancy admitted in a tertiary care hospital at Kottayam.

4. Methodology

The Quantitative approach was used for the study. The research design adopted was quasi experimental pre test post test control group design. Non probability purposive sampling was used in the study. Antenatal mothers with hypertensive disorders of pregnancy between (32 - 36 weeks) of gestation admitted in antenatal ward of Government Medical College Hospital Kottayam were selected for the study.

Inclusion criteria of the present study was antenatal mothers with hypertensive disorders of pregnancy, who are willing to participate in the study and able to read and write malayalam. Those who excluded from the study were antenatal mothers with hypertensive disorders of pregnancy having heart disease, bleeding disorder, multiple pregnancy, psychiatric illness and gestational diabetes mellitus. Tools and techniques used to collect data in the present study were sociopersonal and clinical data sheet, rating scale to assess the level of stress, rating scale to assess the level of coping. On the first day of assessment pre test was conducted for control group followed by post test on 8th day. For experimental group pre test was conducted on the first day of assessment followed by empowerment programme. It consists of two sessions. first session, computer assisted

teaching programme on definition, types, etiological factors, clinical manifestations and management of hypertensive disorders of pregnancy for a duration of 20minutes for a group of 4 - 5 antenatal mothers with hypertensive disorders of pregnancy. Second Session, Relaxation therapy includes breathing exercise and guided imagery for 20 minutes two times daily for 7 days. Breathing exercise taught by the researcher for 10 minutes and guided imagery with the help of pre recorded audio taught by the researcher for 10 minutes on the first day of assessment. From the second day onwards mothers were instructed to continue the intervention two times daily for 7 days. Post test was conducted for experimental group on 8th day. Data was analyzed using descriptive and inferential statistics.

5. Results

5.1 Socio personal data of antenatal mothers with hypertensive disorders of pregnancy

The data indicated that 36.7% of antenatal mothers in the control and 33.4% in the experimental group belong to the age group of 26 - 30years. Majority of antenatal mothers in control group 53.3% and experimental group 66.6% had collegiate education. Among 40% in the control and 66.6% in the experimental group had private job. The data indicates that 63.3% of antenatal mothers in both control and experimental groups belongs to nuclear family. Majority of antenatal mothers in both control 60% and experimental group 63.3% were belongs to BPL status.

5.2 Clinical data of antenatal mothers with hypertensive disorders of pregnancy

The data indicated that 46.7% of antenatal mothers in both control and experimental group belongs to the age group of 34 - 35 weeks of gestation. More than half of antenatal mothers in control 73.3% and experimental 60% had no family history of hypertension. Among 56.5% in the control and 53.3% in the experimental group had no proteinuria. Majority of antenatal mothers in both control 93.3% and in experimental group 86.7% had regular antenatal check - up.

5.3 Stress among antenatal mothers with hypertensive disorders of pregnancy

Table 1: Frequency distribution and percentage of antenatal mothers with hypertensive disorders of pregnancy based on level of stress (n=60)

Stress	Control group (n = 30)		Experimental group (n = 30)		df	χ^2
	f	%	F	%		
Mild (1 - 15)	0	0	0	0		
Moderate (16 - 30)	18	60.0	22	73.3	1	1.2
Severe (31 - 45)	12	40.0	8	26.7		

The data presented in the table 1 depicts that 60% in control and 73.3% in experimental group had moderate level of stress. Also 40% in control and 26.7% in experimental group had severe level of stress.

5.4 Coping among antenatal mothers with hypertensive disorders of pregnancy

Table 2: Frequency distribution and percentage of antenatal mothers with hypertensive disorders of pregnancy based on level of coping, (n=60)

Coping	Control group (n = 30)		Experimental group (n = 30)		df	χ^2
	f	%	F	%		
Poor coping (1 - 15)	0	0	0	0		
Good coping (16 - 30)	26	86.7	25	83.3	1	0.13
Very good coping (31 - 45)	4	13.3	5	16.7		

The data presented in the table 2 depicts that 86.7% in the control and 83.3% in the experimental group had good coping. Also 13.3% in control and 16.7% in experimental group had very good coping.

5.5 Effectiveness of empowerment programme on stress among antenatal mothers with hypertensive disorders of pregnancy

H₀₁: There is no significant difference in stress among antenatal mothers with hypertensive disorders of pregnancy between control and experimental group.

Table 3: Mean rank, sum of ranks and U value of post test scores of stress among antenatal mothers with hypertensive disorders of pregnancy between control and experimental group (n=60)

Group	Stress		
	Mean rank	Sum of rank	U
Control (n=30)	42.02	1260.0	104.5*
Experimental (n=30)	18.98	569.50	

Table 3 showed that the mean rank of post test score of stress in control group was 42.02 whereas 18.98 in experimental group. The obtained U value was 104.5 which was significant at 0.05 level. Hence the null hypothesis is rejected. This shows that there was statistically significant difference in the post test scores of stress among antenatal mothers with hypertensive disorders of pregnancy between control and experimental group.

5.6 Effectiveness of empowerment programme on coping among antenatal mothers with hypertensive disorders of pregnancy

H₀₂: There is no significant difference in coping among antenatal mothers with hypertensive disorders of pregnancy between control and experimental group.

Table 4: Mean rank, sum of rank and U value of post test scores of coping among antenatal mothers with hypertensive disorders of pregnancy (n=60)

Group	Coping		
	Mean rank	Sum of ranks	U
Control (n=30)	17.3	521.50	56.5*
Experimental (n=30)	43.62	1308.50	

Table 4 showed that the mean rank of post test score of coping in control group was 17.3 whereas 43.62 in

experimental group. The obtained U value was 56.5 which was significant at 0.05 level. Hence the null hypothesis is rejected. This shows that there was statistically significant difference in the post test scores of coping among antenatal mothers with hypertensive disorders of pregnancy between control and experimental group.

6. Discussion

The present study evaluated the effectiveness of empowerment programme on stress and coping among antenatal mothers with hypertensive disorders of pregnancy, which shows that there was statistically significant difference in the post stress score and post coping score between control and experimental group at 0.05 level. Another quasi - experimental study aimed to evaluate the effect of implementing an educational program about relaxation techniques on blood pressure and stress level among pregnant women with mild pregnancy induced hypertension was conducted in maternal and child health center in Kebly at ShebinElkom, Menoufia governorate, Egypt. The study concluded that educational program about relaxation techniques have shown beneficial improvement of knowledge and physiological parameters and reduction of blood pressure and stress level among pregnant women with mild pregnancy induced hypertension.⁶

7. Conclusion

Based on the study findings following conclusions were drawn. Majority of antenatal mothers with hypertensive disorders in pregnancy experienced moderate level of stress and good coping during their hospitalization. The study findings also concluded that empowerment programme has a significant effect in reducing the stress and improving the coping ability among antenatal mothers with hypertensive disorders.

8. Future Scope

- A similar study can be conducted on a large sample for longer duration to generalize the findings
- A descriptive survey can be conducted to assess the stress and coping among antenatal mothers with hypertensive disorders of pregnancy

References

- [1] Al - Ghamdi SM, Al - Harbi AS, Khalil A, El - Yahyia AR. Hypertensive disorders of pregnancy: Prevalence, classification and adverse outcomes in northwestern Saudi Arabia. *Annals of Saudi medicine*.1999 Nov; 19 (6): 557 - 60.
- [2] Khavari F, Golmakani N, Saki A, AghamohammadianSerbaf H. The relationship between prenatal coping strategies and irrational beliefs in pregnant woman. *Journal of Midwifery and Reproductive Health*.2018 Apr 1; 6 (2): 1215 - 22.
- [3] Soliman GH, Elalem SM, Elhomosy SM. The Effect of Relaxation Techniques on Blood Pressure and Stress among Pregnant Women with Mild Pregnancy Induced Hypertension. *Asian Journal of Nursing Education and*

Research.2017; 7 (3): 321 - 9.

- [4] Urech C, Fink NS, Hoesli I, Wilhelm FH, Bitzer J, Alder J. Effects of relaxation on psychobiological wellbeing during pregnancy: a randomized controlled trial. *Psychoneuroendocrinology*.2010 Oct 1; 35 (9): 1348 - 55
- [5] Azimian J, AlipourHeidary M, Ranjkesh F. The effects of progressive muscle relaxation and guided imagery on gestational hypertension. *Complementary Medicine Journal*.2017 Sep 10; 7 (2): 1906 - 17.