

Effect of Multi Intervention Programme on Psychological Problems among Antenatal Mothers with Hyperemesis Gravidarum

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Abstract: *The present study was conducted to evaluate the effect of multi intervention programme on psychological problems among antenatal mothers with Hyperemesis Gravidarum. The objectives were to assess the level of psychological problems among antenatal mothers with Hyperemesis Gravidarum, evaluate the effect of multi intervention programme on psychological problems among antenatal mothers with Hyperemesis Gravidarum and to find the association between psychological problems and selected socio demographic variables. An experimental research approach with pretest post test control group design was used for the study. The study was conducted among 60 antenatal mothers with Hyperemesis Gravidarum admitted in selected hospitals at Kannur. Purposive sampling was used in the study. Standardized DASS 21 scale was used to select antenatal mothers who had psychological problems related to Hyperemesis Gravidarum. The tools used were questionnaire to assess the socio demographic variables and a three point rating scale to assess the level of psychological problems. The main study was conducted from April 2018 to May 2018 in 6 selected hospitals at Kannur district. After a pretest, a multi intervention programme including guided imagery daily for three days and dyadic support on second day of intervention with selected post natal mothers was administered to experimental group. Control group was given with routine care. A post test was done on the third day. A Hyperemesis chart is also maintained in both experimental and control group. The data were tabulated and analyzed by descriptive and inferential statistics. The findings of the study revealed that the multi intervention programme including guided imagery and dyadic support is effective in reducing psychological problems among antenatal mothers with Hyperemesis Gravidarum.*

Keywords: Effect; Multi intervention programme; Psychological problems; Antenatal mothers with Hyperemesis Gravidarum

1. Introduction

1.1 Background of the problem

Pregnancy is a unique, exciting and often joyous time in a woman's life, as it highlights the woman's amazing creative and nurturing powers while providing a bridge to the future. The growing foetus depends entirely on its mother's healthy body for all needs. Consequently, pregnant women must take steps to remain as healthy and well nourished as they possibly can.

Pregnancy and the expectation of the birth of a child bring joy to entire families. Not only the parents to be, but the grandparents and siblings of the expectant couple all wish to share the joy of this miraculous event. A new baby in the family is a wondrous thing.¹

Complications of pregnancy, childbirth, and the post partum period are health problems that arise from conception onwards and continued until 6 weeks after childbirth. There is no clear distinction between complications of pregnancy and discomforts of pregnancy. However, the latter do not significantly interfere with activities of daily living or pose any significant threat to the health of the mother or baby. Still, in some cases the same basic feature can manifest as either a discomfort or a complication depending on the severity. For example, mild nausea may merely be a discomfort (morning sickness), but if severe and with vomiting causing water-electrolyte imbalance it can be classified as a pregnancy complication (Hyperemesis Gravidarum).²

Pregnancy is a state with lots of problems, some may be minor and some may cause deleterious effect on the health of the mother. The common problems faced by antenatal mothers are morning sickness, back ache, bowel and bladder problems, skin changes, muscle cramps, swelling, varicose vein, headache, vaginal discharges, anxiety, depression, irritability, stress, lack of sleep.³

Pregnancy has typically been considered as a time of emotional well-being. Recent studies suggest that up to 20% of women suffer from mood or anxiety disorders during pregnancy. Those women with histories of psychiatric illness who discontinue psychotropic medications during pregnancy are the most vulnerable group.⁴ Psychological disorders, also referred to as mental disorders, are abnormalities of the mind that result in persistent behavior patterns that can seriously affect the day-to-day function⁵ Hyperemesis Gravidarum leads to both physical and psychological problems. Physical problems include nausea, vomiting, retching, ptyalism, dehydration, fatigue, metabolic acidosis, weight loss, nutritional deficiency and constipation. Women experiencing Hyperemesis Gravidarum may feel loss of control, as their lives turn upside down and are unable to care for themselves. The fear, helplessness and horror of Hyperemesis Gravidarum may trigger traumatic symptoms, such as flashbacks, intrusive images, nightmare, numbness, depression, and a tendency to feel withdrawn. The common psychological problems are sleep disturbances, hyper olfaction, decreased gustatory discernment, emotional instability, depression, anxiety, irritability and mood changes⁶.

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Hyperemesis Gravidarum can be treated with various modalities. Initial management should be conservative and may include pharmacotherapy, reassurance, dietary recommendations, and support. Most of the treatment modalities were focusing on the physical symptoms of the mothers and at the same time psychological problems were getting less attention⁷.

2. Need and significance of the study

Being mother is one of the most blessed and the most challenging job in the world. Giving birth to a new life and holding its hands showing a good trail makes a mother victorious in her life.

A cohort study was conducted in Malaya during 2010- 2012 to evaluate the temporal and case-controlled correlations of anxiety, depression and stress with Hyperemesis Gravidarum among antenatal mothers by using DASS 21 scale. The results showed that the prevalence of nausea and vomiting, depression, anxiety and stress cases in newly hospitalized Hyperemesis Gravidarum women were 100% , 19%, 69% and 21% respectively. This had fallen by the third trimester to 25.6%, 4%, 19% and 3% and in third trimester controls were 15.9% and 14.2%, 14%, 61% and 20% respectively. Within the Hyperemesis Gravidarum cohort, nausea, vomiting depression, anxiety and stress reduced significantly by an absolute 84.3% (95% CI 76.2%–89.8%), 90.1% (82.8%–94.2%), 14.9% (7.2%–23.0%), 49.6% (38.6%–58.7%) and 18.2% (10.4%–26.4%) respectively between hospitalization for Hyperemesis Gravidarum and at the third trimester. In the third trimester, when comparing the Hyperemesis Gravidarum cohort to controls, the risk of nausea or vomiting was similar but depression, anxiety and stress were significantly lower: adjusted odds ratio AOR 0.10 (95% CI 0.03–0.5), 0.11 (0.05–0.23) and 0.08 (0.02–0.33) respectively. The study concluding that depression, anxiety and stress related to Hyperemesis Gravidarum were reduced in third trimester during hospitalization.⁸

A study was conducted to evaluate the effects of Guided Imagery on stress and fatigue in patients undergoing radioactive iodine therapy after thyroidectomy in Korea on 2013 among 84 individual with thyroid cancer. There were significant decreases in stress ($F = 28.45, P < 0.001$) and fatigue ($F = 26.17, P < 0.001$) over time in the experimental group compared to the control group at the end of the study.⁹ Hyperemesis Gravidarum is a common problem now a days and number of hospitalized cases are increasing day by day. Women with Hyperemesis Gravidarum are at high risk for developing many of the psychological problems like anxiety, depression, sleep disturbances, suicidal ideation etc and psychological problems are increases with severity of Hyperemesis Gravidarum. Most of the management modalities for Hyperemesis Gravidarum are focusing on physical symptoms and psychological problems were got less or no attention. Therefore, a complete, comprehensive and holistic approach is needed for the treatment of psychological problems among antenatal mothers with Hyperemesis Gravidarum. During the clinical posting the investigator collected the statistics of Hyperemesis Gravidarum cases in Government Hospital Thalassery, from the month of January 2018 to June 2018 found that, 33

Hyperemesis Gravidarum patients were admitted with severe vomiting. Most of the patients were too tired by physical symptoms. Medical treatments were given only to subside vomiting. Most of the patients were disturbed with psychological problems like depression, anxiety about health, stress, blaming self and suicidal ideation. But none of the treatment was given for psychological support. In most of the cases, the women with Hyperemesis Gravidarum as well as their care givers are not aware about the psychological problems. So they mainly seek care for the vomiting only. In the modern world, varieties of alternative therapies are available and it soothes the physical and psychological wellbeing of a person. While comparing with medical treatment, the alternative therapies have less adverse effects and their benefits are more. Thus it is reasonable to investigate whether the Multi intervention programme includes Guided Imagery and Dyadic support can reduce the psychological problems among antenatal mothers with Hyperemesis Gravidarum.

Objectives

- Assess the level of psychological problems among antenatal mother with Hyperemesis Gravidarum.
- Evaluate the effect of multi intervention programme on psychological problems among antenatal mothers with Hyperemesis Gravidarum
- Find the association between psychological problems and selected socio demographic variables.

Hypotheses

- H1- There is a significant change in psychological problems among antenatal mothers with Hyperemesis Gravidarum after administration of multi intervention programme.
- H2- There is significant association between psychological problems among antenatal mothers with Hyperemesis Gravidarum and selected socio demographic variables

3. Materials and methods

Research approach

Quantitative approach

Research design

Experimental research approach with pretest post test control group design

Variable

Dependent variable: Selected psychological problems among antenatal mothers with Hyperemesis Gravidarum

Independent variable: Multi intervention programme

Socio demographic variables: Age in years, gestational age in weeks, parity, family history of Hyperemesis Gravidarum, education, occupation, and monthly income in rupees, type of family and episodes of vomiting.

Setting of the study

Settings of the study are selected hospitals in Kannur which includes Government Hospital Thalassery, Co- Operative Hospital Thalassery, Indira Gandhi Co Operative Hospital Tthalassery, Mission Hospital Thalassery, Tely Hospital Thalassery and Josgiri Hospital Thalassery.

Population

In this study population were the antenatal mothers who are having psychological problems related to Hyperemesis Gravidarum.

Sample and sampling technique

In this study, the sample refers to antenatal mothers admitted with Hyperemesis Gravidarum and related psychological problems.

Sample size- 60, 30 in experimental group and 30 in control group.

Sampling technique: Purposive sampling.

Sampling criteria

Antenatal mothers with Hyperemesis Gravidarum having a DASS 21 scale score of positive depression (score >4), anxiety (score >3) and stress (score >7).

Tools/Instruments

Tool 1: Questionnaire to assess socio demographic variables

Tool 2: Rating scale to assess the level of psychological problems.

Data collection process

The data collection was done from 1/04/2018 to 30/04/2018. The investigator met the sample individually and explained the purpose of the study. Sample selected by purposive sampling. Antenatal mothers with Hyperemesis Gravidarum who met the inclusion and exclusion criteria and selected by using DASS 21 scale (score moderate or above in any aspect) and 60 sample were selected, 30 sample to control group and 30 sample to experimental group. After getting informed consent from participants, pretest was administered in control group first with duration of 15 minutes and routine care given. Pretest was done in experimental group with duration of 15 minutes per sample. Multi intervention programme was administered to experimental group. Guided imagery is repeated for 3 days, once in a day with the duration of 20 minutes in the morning. Dyadic support was given to experimental group on the second day. It was performed by making selected post natal mothers who had the history of Hyperemesis Gravidarum with the duration of 20 minutes. A Hyperemesis chart is also maintained in both experimental and control group. Confidentiality was maintained throughout the study. Post test was carried out on the third day in both groups.

4. Results

Frequency and percentage distribution of sample based on level of psychological problems (N=60)

Level of psychological problems	Experimental group				Control group			
	pretest		Post test		Pretest		Post test	
	f	%	f	%	f	%	f	%
Mild	19	63.3	24	80	18	60	10	33.3
Moderate	11	36.7	6	20	12	40	19	63.3
Severe	0	0	0	0	0	0	1	3.4

Comparison of pretest scores of psychological problems of experimental group and control group (N=60)

Group	Mean	SD	Df	t value	P value
Experimental group	16.47	5.283	58	0.525	0.602
Control group	15.73	5.539			

p>0.05

Comparison of pretest and post test scores of psychological problems of experimental group (N=30)

Group	Mean	SD	Df	t value	P value
Pre test	16.47	5.283	29	10.998	0.000
Post test	12.03	4.760			

p<0.05

Comparison of pretest and post test scores of psychological problems of control group (N=30)

Group	Mean	SD	Df	t value	P value
Pre test	15.73	5.539	29	10.656	0.000
Post test	18.17	5.331			

p< 0.05

Comparison of post test scores of psychological problems of experimental group and control group (N=60)

Group	Mean	SD	Df	t value	p value
Post test of experimental group	12.03	4.760	58	4.701	0.000
Post test of control group	18.17	5.331			

p< 0.05

Association between psychological problems and selected socio demographic variables.

There is no significant association between psychological problems and selected socio demographic variables.

5. Discussion

The findings of the study are discussed with reference to objectives and hypothesis and in the light of other studies

The present study findings showed that the multi intervention programme on psychological problems among antenatal mothers has significantly reduced psychological problems. The mean post test scores of psychological problems were significantly lower than that of the mean pre test score.

The study findings were consistent with the findings of the study conducted in Indonesia to reduce anxiety during labour by using guided imagery among pregnant women [N=22]. The study reveals that, 27% of respondents suffered from mild anxiety and 73% of them suffered from moderate anxiety, and after the guided imagery therapy 36% of respondents felt no more anxiety and 55% of respondents experienced light anxiety. The study concludes that Guided Imagery is effective in reducing anxiety among pregnant women who undergone through delivery.¹⁰

This study finding was consistent with the findings of other study conducted in Boston to assess effectiveness of perinatal dyadic psychotherapy for post partum depression. The result reveals that Depression and anxiety symptoms and diagnoses decreased significantly, and maternal self-esteem increased significantly across the study time frame with no between-group differences. There were no

significant differences between groups on parenting stress or mother-infant interaction at post-intervention and follow-up¹¹

The present study revealed that there was no association found between psychological problems and selected socio demographic variables

6. Conclusion

The following conclusions were made on the findings of the study.

- Psychological problems such as depression, anxiety, stress, irritability, mood swings, sleep disturbances, hyper olfaction and emotional instability are common among antenatal mothers with Hyperemesis Gravidarum.
- Multi intervention programmes like Guided Imagery and Dyadic support are effective in reducing psychological problems
- There was no association found between psychological problems and selected socio demographic variables.

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