

# EFFECTIVENESS OF INTERVENTION STRATEGIES IN IMPROVING THE SELECTED CLINICAL PARAMETERS AMONG PREGNANT WOMEN WITH PIH

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## Introduction:

Pregnancy is one of the wonderful and noble services imposed by nature, no woman can shirk. Most of the women may not have many problems during pregnancy but some are not so lucky and face various problems related to pregnancy and childbirth. WHO estimated that the number of women die in pregnancy and childbirth was 500,000 each year and out of which 99% of them are in the developing countries. Nearly all maternal deaths are preventable. India has a very high (about 300 out of 1,00,000) maternal mortality rate as against a very low (about 54 out of 1,00,000) in developed countries. The hypertensive disorders of pregnancy and their complications are the major causes of maternal mortality and the third most common causes of maternal mortality in the world. The incidence of PIH varies from 8% to 10%.

Significance and need for the study:

World wide, a significant contributor to maternal and perinatal morbidity and mortality, pre eclampsia complicates approximately 12% to 20% of all pregnancies. In US PIH is the leading cause of maternal death. The overall rate of reported maternal death from preeclampsia/eclampsia is 1.8per 1, 00,000 which is the leading cause of death. PIH can cause serious effects such as Placenta abruption, hematological

disturbances in the kidneys, lungs, liver and brain, preterm labor, PPH, HELLP syndrome etc. In the fetus PIH can cause low birth weight, fetal hypoxia, intra uterine death, preterm delivery. Although pre eclampsia cannot be prevented, the cause of disease can be modified and the risk to mother and fetus. It can be reduced by early diagnosis followed by efficient treatment. To attain this midwife must be trained to detect the early signs of the eclampsia and to impart the remedial actions as early as possible.

## Methodology:

**Conceptual framework:** The study was based on JW Kenny's Open system model.

**Approach:** Experimental approach

**Design:** One group pretest, post test pre experimental design

**Setting:** The study was conducted in antenatal wards comprising 60 beds in a govt hospital. Nearly 10 to 20 women with PIH who were in third trimester with some complications were admitted every week.

**Sample:** antenatal women with PIH above 20 weeks of gestation who were admitted in the ward.

**Sample size:** 30 women with PIH.

**Sampling technique:** Purposive sampling technique

**Data collection tool:**

**Comprises 3 sections:**

**Part I-SecA:** It consists of demographic profile

**Sec B:** consists of Obstetrical history

**Part II - SecA:** Consists of 18 items on clinical signs of Women with PIH

**Sec B:** Consists of 5 items on Biophysical markers of women with PIH

**Part III- Sec A** consists of 2 items on fetal assessment (FHR and DFMC)

Sec B consists of 3 items on nutritional assessment of the women with PIH.

**Validity:** The tool was validated for its content and language by experts appropriately.

**Reliability:** The reliability of the tool was established by Interrater reliability and the tool was found to be reliable with 'r'=0.9.

**RESULTS:**

Data were analyzed and tabulated based on their objectives. With regards to the demographic profile,83.3% of the sample were between 21-30 yrs of age, majority (83.3%) were Hindus, 53.3%were living as nuclear family, a very minimum of 13.4% only had higher secondary education, 73.4% of the samples were housewives,13.4% earned below 1000Rs,and 20% were from rural area.

In terms of the obstetric history, 43.4%of the sample married below 20 years, 40% had 2nd degree consanguineous marriage, 100% of them had attended antenatal checkup,56.6% had registered in Ist trimester, 70% were primi gravida, and 100% had immunized.

**Table I**

Frequency Distribution and Percentage of sample according to the selected obstetrical history N= 30

<b>Obstetrical History</b>	<b>F</b>	<b>%</b>
Age at Marriage		
Below 20	13	43.4
21 - 30	17	56.6
Type of Marriage		
Non consanguineous	4	13.4
1°consanguineous	9	30
2° consanguineous	12	40
3° consanguineous	5	16.6
Attending antenatal checkup		
Yes	30	100
No	0	0
Parity		
Primi	21	70
Multi	9	30
Immunization		
Immunized	30	100
Non immunized	0	0
Past history of PIH		
Yes	3	10
No	27	90

In terms of clinical signs of pregnant women with PIH, before intervention strategies, out of 30 samples, 86.6% had periorbital edema, 83.3% had head ache, 73.3% had facial puffiness, 67% had numbness, 56.6% had nausea and vomiting, 53.3% had edema and epigastric pain respectively, 27% had vulval edema and 10% had bleeding per vagina.

After the intervention strategies on 5th day, out of 30 samples, 60% had periorbital edema, 50% had headache, 27% had numbness and 20% had numbness. After 10th day, 17% had periorbital edema, 13.3% had

headache, and 7% had epigastric pain and numbness respectively.

Regarding the grading of clinical signs of pregnant women with PIH, before intervention strategies out of 30 samples, 63.4% had moderate degree and 36.6% had mild degree on clinical signs of PIH.

After intervention strategies on 5th day, 100% had mild degree on clinical signs of PIH and after 10th day 60% had no clinical signs of PIH and only 40% had mild degree on clinical signs of PIH.

Grading the clinical signs of PIH	Pretest		Posttest on 5th day		Posttest on 10th day	
	f	%	f	%	f	%
Normal	0	0	0	0	18	60
Mild	11	36.6	30	100	12	40
Moderate	19	63.4	0	0	0	0
Severe	0	0	0	0	0	0

With regard to the degree of assessment on biophysical markers of pregnant women with PIH, before intervention strategies, out of 30 samples, 63.3% had moderate degree of PIH

and 36.7% had mild degree of PIH. After intervention strategies on 5th day, 96.7% had mild degree and after 10th day 56.6% became normal, 43.4% had mild degree of PIH only.

**Table--III**

Grading of the biophysical markers of the pregnant women with PIH before and after intervention strategies N=30

Grading the clinical signs of PIH	Pretest		Posttest on 5th day		Posttest on 10th day	
	f	%	f	%	f	%
Normal	0	0	0	0	17	56.6
Mild	11	36.7	29	96.7	13	43.4
Moderate	19	63.3	1	3.3	0	0
Severe	0	0	0	0	0	0

The mean posttest clinical parameters score 26.4 was less than mean pretest clinical parameters score 35.4 and 't' value was 14.1 which was significant at 0.05 level. The study findings reveal that, intervention strategies were effective in improving the clinical parameters score for the pregnant women with PIH.

**Table:IV**

Comparison of mean pretest score and mean posttest score after the intervention strategies  
N= 30

S.No	Observations	Mean	SD	't'
1	Pretest score	35.4	3.45	*14.1
2	Posttest score	26.4	1.60	

\* Significance at 0.05 level (P<0.05)

**Implications for Nursing Practice:**

Continuing nursing education can be planned for the nursing personnel to update their knowledge in assessing and caring for the patient with PIH.

- The nurse can plan instruction module and organize teaching programme for pregnant women with PIH.
- The awareness and screening of health status programme can be organized by the health team in hospital and in community to identify the risk.

**Nursing education:**

- Nursing students can be specially trained to assess the health status of PIH mother.
- In-service education can be organized for the nursing personnel to update their knowledge and abilities in identifying the learning needs of pregnant women with PIH and planning for appropriate interventions.

**Recommendations:**

1. A similar study can be conducted on health status and pregnancy outcome of

high risk pregnant women.

2. The same study can be conducted among two groups (experimental and control group)
3. A study can be done to assess the knowledge and attitude of mother regarding self care activities of PIH.
4. A comparative study can be done to evaluate the effectiveness of intervention strategy versus self instructional module.
5. A comparative study can be carried out to evaluate the various treatment modalities for PIH.

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