

AN EVALUATION OF A NURSING INTERVENTION PACKAGE'S EFFECTS ON ANTENATAL MOTHERS' MANAGEMENT OF PREGNANCY-INDUCED HYPERTENSION

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Abstract

One of the most crucial and significant life experiences for a woman is becoming pregnant and giving birth. About 5% to 8% of pregnancies result in PIH, and in both industrialized and developing nations, more severe instances are often linked to poor outcomes for both the mother and the fetus. The purpose of the current research was to evaluate the impact of a nursing intervention package on the treatment of pregnancy-induced hypertension and its consequences for expectant mothers. One group was given a pre-test and a post-test at a headquarters hospital using a pre-experimental design. The quantitative method was used. Convenient sampling was used to choose fifty expectant moms. Five experts from different nursing, medical, and statistical departments validated the content validity of the Nursing Interventional package tool. The efficacy of the intervention was assessed using the independent t-test and the chi-square test. The results indicate that the mean score was 15.32 ± 2.622 in the pre-test and 29.30 ± 3.547 in the post-test. $t = -22.0$ is the computed paired test value. It demonstrates that the Nursing Interventional Package was more successful in raising PIH mothers' health condition and PIH knowledge levels. According to the current research, the Nursing Interventional Package was more successful in managing the health status of PIH moms and was both affordable and simple to use.

Key words: Nursing intervention package, Management of hypertension

Introduction

The condition of a developing embryo and a growing fetus within a woman's uterus is known as pregnancy. The anticipated

duration of pregnancy is nine months, starting on the date of the woman's most recent menstrual cycle [1]. It is logically separated into three trimesters, with around three months in each. One of the most frequent pregnancy problems, hypertension is also a key risk factor and a major cause of maternal morbidity and mortality, accounting for 10–15% of maternal fatalities, particularly in poor nations [2]. According to a World Health Organization assessment, pregnancy-related hypertension diseases cause at least one woman's death every seven minutes. Due to high maternal mortality rates, PIH may pose a serious public health risk in both industrialized and developing nations worldwide. In the western world, PIH complicates between 2% and 8% of pregnancies [3].

But in underdeveloped nations, the prevalence of PIH might reach 16.7%. Furthermore, Ethiopia has a high prevalence of PIH, ranging from 2.23 to 18.25%, according to the research that is currently accessible. A medical expert with training in managing hypertensive diseases should provide a comprehensive evaluation in a secondary care environment for women with pregnant hypertension. Consider the following risk factors for women with gestational

hypertension: age 40 or older, pregnancy interval greater than 10 years, multiple pregnancies, family history of pre-eclampsia, BMI of 35 kg/m² or higher, gestational age at presentation, prior history of pre-eclampsia or gestational hypertension, preexisting vascular disease, and preexisting kidney disease. These risk factors necessitate further evaluation and follow-up care for nulliparity.

A woman with gestational hypertension is eligible for an integrated ANC package that includes hospitalization, medication, blood pressure checks, and proteinuria tests [4]. Non-pharmacological therapy is advised as the first step in controlling hypertension due to its early diagnosis, prevention, detection, and assessment. Pregnant women with hypertension are treated with non-pharmacological techniques such as progressive muscle relaxation, yoga, meditation, visualization, and exercise breathing therapy [5].

Materials and Methods

This research used a quantitative method and used a pre-experimental design with a single group pre-test and post-test. Maternal blood pressure, weight, urine sugar, albumin and proteinuria, and fetal movement count were dependent factors in this research, whereas the nursing intervention package was an independent variable. Pregnant women in the target demographic who were all diagnosed with pregnancy-induced hypertension between weeks thirty and thirty-five of pregnancy. Fifty people made up the sample size.

From the target demographic, fifty moms were chosen using convenient sampling. Pregnant women who met the following requirements were eligible to participate: they had to be able to read and write in Tamil, have a history of pregnancy-induced hypertension, be free of fetal

abnormalities, be free of pathological conditions such as diabetes mellitus or heart disease, have previously had hypertension, be willing to participate, and be able to follow instructions. The exclusion criteria included eclampsia symptoms, fetal abnormalities, twin gestation, and polyhydramnios in pregnant women who were linked to other health issues during pregnancy. uncontrolled blood pressure and noncompliance with therapy [6].

Data Collection Procedure

The researcher used a systematic questionnaire to gather pretest data, and biophysiological measurements were also evaluated. The Nursing Interventional Package samples were administered for one hour every day for seven days. PIH management education was provided, and a booklet was distributed. An example of prenatal exercise was shown. taught about the hypertensive diet. Using the same structured questionnaire, the researcher obtained post-test data from the sample on the seventh day. Until delivery, a daily journal was kept. The treatment of PIH was monitored for the first two days after delivery, and the results were evaluated [7].

Results

The demographic data of expectant moms is included in this research. Of the fifty samples, eight (16%) belonged to the 27–30 age group, twenty-four (48%) to the 23–26 age group, eight (36%) to the 18–22 age group, and none to the 30+ age group. The occupations of the mothers were as follows: 27 (54%) were homemakers, 7 (%) were daily wage earners, 16 (%) were private employees, 16 (32%), and none of them were government employees.

The majority of mothers 28, or 56% belonged to nuclear families, followed by

joint families (13, or 26%) and extended families (nine, or 18%). In terms of age at marriage, 18 (36%) were between the ages of 18 and 22, 24 (48%) were between the ages of 22 and 26, 8 (16%) were between the ages of 26 and 30, and none of them were older than 30. Of those with an immunization status, 25 (50%) had received an immunization, whereas 25 (50%) had not. There were 47 (94%) non-vegetarian dietary habits and 3 (6%), vegetarian dietary habits.

Table 1. Statistical significance of the data (n=50)

Test	Mean	Standard deviation	't' value	'p' value
Pre-test	15.32	2.622	-	0.001
Post-test	29.30	3.547	22.00	**S

**-p < 0.001, highly significant

According to this research, the pre-test mean score for the nurse interventional package's success in managing the health status of expectant women was 15.32 ± 2.622, and the post-test mean score was 29.30 ± 3.547. A statistically significant difference between the pre-test and post-test of the level of health status among pregnant moms is shown by the computed paired "t" test result of t = -22.0 with p<0.001 at the level.

With a chi-square value of (2=6.72, def.=2) at the p<0.05 level, the research demonstrates a statistically significant correlation between the demographic variable of age at marriage in years and the post-test level of health status in pregnancy-induced hypertension and its outcome among prenatal women. Pregnancy-induced hypertension and its

outcome among prenatal women did not exhibit significant post-test health status in the other demographic characteristics [8].

The results of this research demonstrate that all 50 women (100%) of the study population were within the gestational age range of 37–40 years at the time of birth. The majority of the mothers 27, or 54% had a normal, spontaneous vaginal birth; 18 or 36% had an induction of labor; 5 or 10% had a cesarean section; and none of them had an instrumental delivery.

In terms of perineal tear degree, 29 women (58%) had first degree tears, 14 mothers (28%) had second degree tears, and 17 mothers (14%) had third degree tears. Following delivery, 34 (68%) of the women had blood pressure readings below 120/80-140/90 mm Hg, 16 (32%) had readings below 140/90-160/100 mm Hg, and none of the mothers had readings below 160/100 mm Hg [9].

At one minute, 11 (22%) of the newborns had a 4-6 APGAR score, 39 (78%) had a 7-10 score, and none had a score lower than 4. In terms of APGAR, all newborns got scores of 7–10 at 5 minutes 50 (100%) and none had scores of 4-6 or less than 4. The majority of 46 moms (92%) started breastfeeding within 30 minutes after giving birth, 4 mothers (8%) did so after 2 hours, and none of the mothers did so after 3 or 4 hours.

The majority of the newborn's weight Three newborns (6%) weighed 1.5–2.0 kg, seventeen (34%), and thirty (60%) weighed 2.1–2.5 kg, 2.5–3.0 kg, and none weighed more than 3 kg. Three (six percent) of the newborns were admitted to the NICU, whereas forty-seven (94 percent) were not. In terms of neonatal outcomes, 47 (94%) of the babies were healthy, 3 (6%), and none of them were IUGR or IUD/stillborn [10].

Discussion

In pre-test, majority of the antenatal mothers 41 (82%) had better health status and 9 (18%) had poor health status. In post-test, majority of the antenatal mothers 44 (88%) had good health status and 6 (12%) had better health status and none of them had poor health status.

In the pre-test mean score was 15.32 ± 2.622 and in the post-test was 29.30 ± 3.547 respectively. The calculated paired 't' test value of $t = -22.0$. It shows that nursing interventional package was effective in improved health status among pregnancy induced hypertensive mothers.

The demographic variable such as Monthly income in rupees and after marriage how many years to get conceived had shown statistically significant association pre-test level of health status in Pregnancy Induced Hypertension and its outcome among Antenatal mothers with chi-square value of ($2=6.747$, $df.=2$) and ($2=3.82$, $df.=1$) at $p<0.05$ level.

The demographic variable age at marriage in years had shown statistically significant association post-test level of health status in Pregnancy Induced Hypertension and its outcome among Antenatal mothers with chi-square value of ($2=6.72$, $df.=2$) at $p<0.05$ level. The other demographic variables had not shown statistically significant post-test level of health status in Pregnancy Induced Hypertension and its outcome among antenatal mothers respectively.

The mothers 50 (100%) of were in the gestational age at delivery in weeks between 37-40 years. Most of mothers 27(54%) came under normal spontaneous vaginal delivery. Most of the mothers 29(58%) were first degree of perineal tear. Majority of the mothers 34(68%) were 120/80-140/90mmHg blood pressure after

delivery. Most of the newborns 39(78%) were obtained one minute APGAR score was 7-10.

All the newborns 50(100%) were at five-minute APGAR score was 7-10. Most of the postnatal mothers 46 (92%) were belongs to initiation of breast feeding within half an hour after delivery. Majority of the baby weight 30(60%) were belongs to 2.5 to 3 kg. Most of the newborn 47 (94%) were not had admission. Majority of the mothers 47 (94%) were had healthy neonatal outcome.

Conclusion

Pregnancy-induced hypertension was successfully managed with the help of the nursing intervention package. In addition to being cost-effective, this package was simple to follow, reasonably priced, and enhanced quality of life. According to this research, pregnant women with high blood pressure had better health and understanding of PIH. Therefore, during obstetrical care, midwives should provide appropriate evaluation, early problem identification, and prompt therapy of maternal and fetal difficulties in their capacity as nurses.

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