

Effectiveness of Educational Program on Nurse-midwives' Knowledge about Pregnancy Induced Hypertension at Bint Al-Huda Hospital in Al-Nasiriya City

Sarah Talb Kadhim¹, Suhad H. Khairi²

¹M.Sc. Instructor, Maternal and Neonate Nursing Department of College of Nursing, Thi-Qar University,

²Assistant Prof., Maternal and Neonatal Health Nursing Department of College of Nursing, University of Baghdad

Abstract

Background: Pregnancy induced hypertension, is common throughout the world but more frequent in developing countries and cause of maternal and infant mortality and morbidity.

Objectives: To the effectiveness of educational program about PIH on nurse-midwives' knowledge

Subjects and Method: A quasi-experimental design, non- probability (purposive) sample of (50) nurse-midwives' who are working in Bint Al-Huda hospital in Al-Nasiriyah City during February 13th through April 2nd 2019.

Results: The results of the study show that more than a one third of the study sample are within age group (20-25) years, and had more than a half were married, one third were nursing school graduates and had experiences for 10 years or more. In pretest the nurse's knowledge show poor and fair level, after intervention of the program and through two posttest in different timing the score show a progress in result to very good level. (84.9%) for knowledge during posttest I and to (100%) for posttest II to knowledge.

Conclusion: The study concludes there were significant of educational program on nurse-midwives' knowledge.

Keywords: Effectiveness, Educational Program, Nurse-midwives', Knowledge, Pregnancy Induced Hypertension.

Introduction

Pregnancy induced hypertension is defined as BP $\geq 140/90$ mmHg, taken after a period of rest on two occasions or $\geq 160/110$ mmHg on one occasion in a previously normotensive woman¹. Or as systolic blood pressure (SBP) >140 mmHg and diastolic blood pressure (DBP) >90 mmHg. It is classified as mild (SBP 140-149 and DBP 90-99 mmHg), moderate (SBP 150-159 and DBP 100-109 mmHg) and severe (SBP ≥ 160 and DBP ≥ 110 mmHg)² According to the Canadian Hypertension Society, PIH refers to one of four conditions: a) pre-existing hypertension, b) gestational hypertension, and preeclampsia, eclampsia and HELLP syndrome) pre-existing hypertension plus superimposed gestational hypertension with proteinuria and unclassifiable

hypertension³ Worldwide, (10%) of all pregnancies are complicated by hypertension, with pre-eclampsia and eclampsia being the major causes of maternal and prenatal morbidity and mortality²⁸ It is also estimated that pregnancy induced hypertension (PIH), one of the hypertensive disorders of pregnancy, affects about (5 – 8%) of all pregnant women worldwide Muti, (2015). Incidence of hypertensive disease associated with pregnancy varies widely in epidemiological studies due to variations in definitions, and the differences in data collection Schoenaker, (2014) Pregnancy induced hypertension is one of the causes of maternal deaths in Iraq (30) deaths per year according to the 2014 census. According to the WHO, 2011 PIH is one of the main causes of maternal, fetal and neonatal mortality and morbidity, it is the most common cause of maternal

death in Europe. It is a major pregnancy complication associated with premature delivery, intra-uterine growth retardation (IUGR), abruptio placentae, and intra-uterine death, as well as maternal morbidity and mortality. It is estimated that (9.1%) of maternal deaths in Africa are due to hypertensive disorders of pregnancy. Other maternal short-term complications include central nervous system dysfunction, hepatocellular injury, thrombocytopenia, acute disseminated intravascular coagulation (DIC), oliguria, pulmonary edema, cerebrovascular events and placental abruption⁸. Interventions during pregnancy, may improve maternal outcomes. In this regard, the intervention includes primary prevention, detection of increased risk and early detection of any stage of PIH by antenatal adequate care. Secondary prevention of progression is by treatment at primary level or referral for expert care. It is understood that care guided by findings generated from rigorous scientific method consists of gold standard in health care¹³.

Methodology

Subjects and Method: Non-probability (purposive) sample of fifty (50) nurse-midwives' who are working in Bint Al-Huda hospital during study intervention regardless of their age, social status and educational level on nurse-midwives' who worked in obstetrics and gynecology department (emergency words, labor room, maternal ward, operation room and maternity intensive care unit).

Data collection has been performed through the use of the study instrument and the application of educational program on nurse-midwives' knowledge about pregnancy induced hypertension, from February 13th through April 2nd 2019.

The questionnaire consists of three part: Part I included sociodemographic data related to the respondents characteristics such as age, level of education, social status, years of experience, Current site of work, previous site of work, did you know before about pregnancy induce hypertension, did you previously participation in any course about pregnancy induces hypertension and Have you ever nurse pregnant woman with pregnancy induce hypertension during work.

Part II this part is assessing with (65 items) related to the nurse-midwives' performance, the items are rated according to a (2) points rating scale, scoring, which are as (2) for agree and (1) for dis agree. The questions items include items of PIH performance during antenatal, during convulsion, during Labor and during postpartum

Part III check list for evaluation the nurse-midwife performance, the items are rated to a (2) points rating scale, the level of the scale are scored as (2) for done and (1) for Not done. The questions items include items of PIH performance during emergency, convulsion, labor and Postpartum.

The data of present study were analyzed through the application of descriptive and inferential statistic.

Results

Nurses-Midwives Age (years)

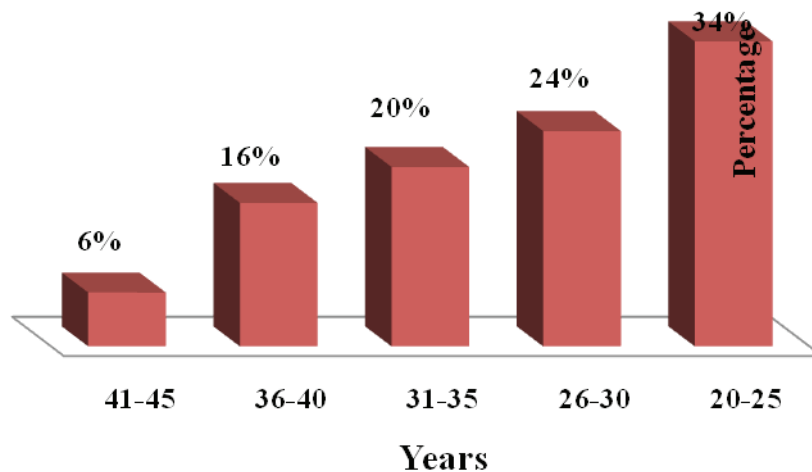


Figure (1): Nurses -midwives Age

Figure (1) revealed that the higher percentage (43%) of study sample were at age group 20-25-years with mean and SD (2.14±7.969), while the lowest percentage for those who age 41-45-years were (n = 3; 6.0%).

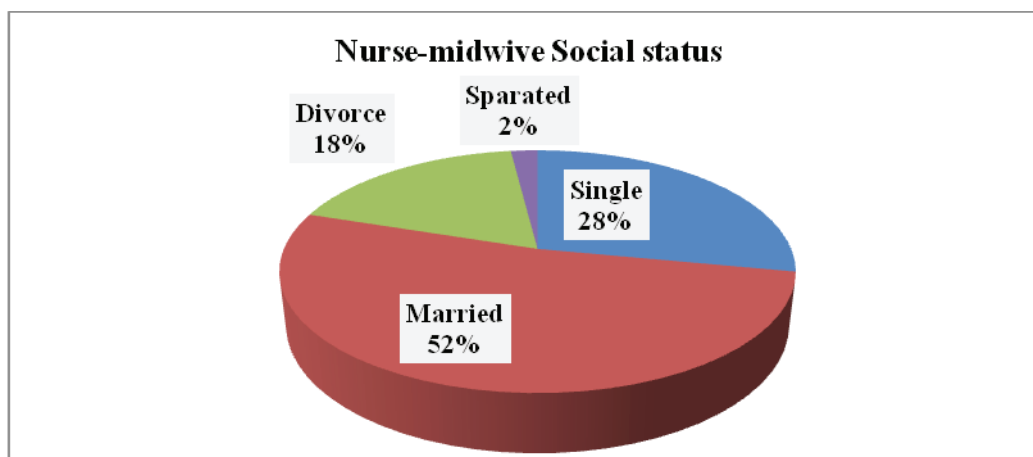


Figure (2): Nurses -midwives Social status

Figure (2) shows that more than a half (n = 26; 52.0%) are married of study sample, while the lowest percentage is (n = 1; 2.0%) who is separated.

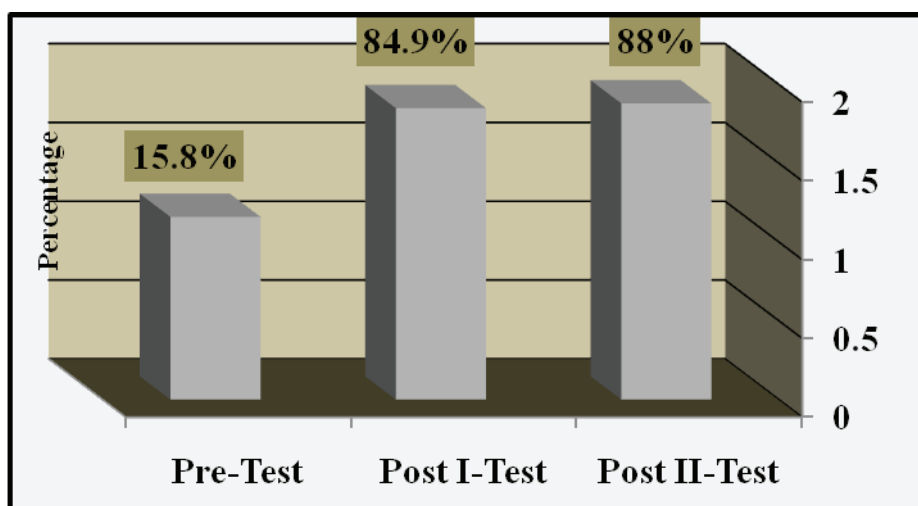


Figure (3): The Actual Effectiveness of Program on Nurses-Midwives Knowledge during Three Periods (Pre, Post I And Post II-Test) Related To Pregnancy Induced Hypertension

This finding shows that the results consistency with research hypothesis which mean the overall percentage at posttest-I and II is higher than the mean at pretest, at conclude that the program is effectively improve nurse-midwives knowledge.

Discussion

Assess nurse-midwives' knowledge about pregnancy induced hypertension: The tables displays the distribution of the nurse-midwives' knowledge about pregnancy induced hypertension that was assessed in pretest. It indicates improvement of nurses' knowledge

in the all items in post-test-I and post-test-II from poor to good. These improvements were statistically significant in the all items. Exceptmagnesium sulphate drug application change from poor to fair in post-test-I and preeclampsia superimposed on chronic hypertension and HELLP syndrome definition item (7&8) were change from poor to fair. Nonetheless, the levels were still significantly higher in compare with pre-program levels. This is finding is consistent with Emam (2018) who stated that there was statistically significant difference before and after regarding all items of the knowledge with increased knowledge of nurses after program

relation to nurses knowledge regarding care of eclampsia ($p < 0.05$). Dipti Shukla, (2016), reported a significant improvement in nurse-midwives knowledge regarding pregnancy induce hypertension and its components after giving the educational program.

Mohamady & Elkheshen (2017) revealed that was improvement of nurses' knowledge during the educational program compared to before teaching in relation to knowledge about PIH, dietary management, possible complications, and nursing care of PIH. In this respect Lowdermilk et al., (2012), mentioned that, it is important to provide care, the nurse should have a comprehensive knowledge of PIH, to detect deviations from normal and provide early treatment and supportive nursing care.

The mean value of the knowledge of nurses regarding definition of PIH at pretest measurement was (1.26 ± 0.443), and at posttest-I was (1.86 ± 0.351); and at posttest-II was (1.74 ± 0.443) indicates high significant differences between (pre and posttest-I) (pre and post II-test) from poor level to good level in both posttest-I and posttest-II measurements regarding knowledge of the nurses about definition of PIH ($P < 0.05$)

The mean value of the knowledge of nurses regarding the classification of PIH at pretest measurement was, (1.18 ± 0.388) and at posttest-I was, (1.88 ± 0.328) and posttest-II was, (1.76 ± 0.431) With comparison shows there are high significant between (pre and posttest-I) (pre and post II-test) from poor level to good level in both posttest-I and posttest-II measurements regarding knowledge of the nurses about classification of PIH ($P < 0.05$). Comparing with similar study was conducted in port Said University reached (100.%) in the immediate post-test and there was improvement in study sample knowledge in both study (Muti, et al., 2015) the nurse and nurse midwives should know the definition of pregnancy induced hypertension that increase blood pressure 140/90 mm/Hg or above after 20 gestation. Berhan (2016) mentioned that terminology used to describe the pregnancy induced hypertension is causing confusion for health care providers. The Watanabe et al., (2019) outlines current accepted terminology of hypertension disorder with pregnancy (HDP). Clinically, there are two basic types of hypertension during pregnancy. Chronic hypertension and PIH, with the distinction based on the onset of hypertension in relation to the pregnancy. Mohamed, et al., (2013) supported this result by reported a improvement of nurses' knowledge in the

all items of knowledge of PIH. These improvements were statistically significant in the all items. Regarding causes of PIH the mean value at pretest measurement was (1.18 ± 0.388), and at posttest-I was (1.84 ± 0.370); and at posttest-II was (1.76 ± 0.431); indicates high significant differences between (pre and posttest -I) (pre and post II-test) from poor level to good level in both posttest-I and posttest-II measurements regarding knowledge of the nurses about causes of PIH ($P < 0.05$). The mean value of the knowledge of nurses regarding risk factors of PIH at pretest measurement was (1.12 ± 0.328), and at posttest-I was (1.84 ± 0.370), and at posttest-II was (1.80 ± 0.404); indicates high significant differences between (pre and posttest -I) (pre and post II-test) from poor level to good level in both posttest-I and posttest-II measurements regarding knowledge of the nurses about risk factor of PIH ($P < 0.05$).

Conclusion

In conclusion the nurse could identify the risk group of pregnancy induce hypertension such as nulliparity and hypertension increased the risk of preeclampsia, High pre- pregnancy weight was related to a higher risk of mild and moderate preeclampsia, whereas previous preeclampsia strongly increased the risk of early onset preeclampsia. Regarding clinical picture of PIH the mean value at pretest measurement was (1.18 ± 0.388), and at posttest-I was (2.00 ± 0.000), and at posttest-II was (2.00 ± 0.000); indicates high significant differences between (pre and posttest -I) (pre and post II-test) from poor level to good level in both posttest-I and posttest-II measurements regarding knowledge of the nurses about clinical picture of PIH ($P < 0.05$). The nurse's knowledge about clinical picture of pregnancy induced hypertension assessed overtime. It indicates improvement of nurses' Knowledge in the all items. These improvements were statistically significant in the all items. The most prominent improvements were related to clinical picture needed for the infants and complications of hypertension for the pregnant women, which reached 100.0% in the immediate posttest-I and remained at the level at the follow-up posttest-II. Nonetheless, the levels were still significantly higher than the pre-program levels. ELfakki, (2017)¹⁶ supported this result by reported the nursing knowledge in two study was better than pretest. The nurse should be aware about the weight gain during pregnancy and when the patient developed pathological edema and should know that when patient complain from severe symptoms of preeclampsia such as right hypo chondrial pain, epigastric pain. This finding supported

by the result of (Magee et al., 2005), who reported that the maternity nurses mentioned some signs and symptoms. In respect to investigations related to pregnant women of PIH the mean at pretest measurement was (1.34±0.479), and at posttest-I was (1.94±0.240), and at posttest-II was (1.94±0.240); indicates high significant differences between (pre and posttest -I) (pre and post II-test) from fair level to good level in both posttest-I and posttest-II measurements regarding knowledge of the nurses about Investigations of PIH ($P < 0.05$). Williams et al., (2013) stated that diagnosis of hypertensive disorders in early pregnancy and preeclampsia in late pregnancy need through investigations. These investigations will differ slightly depending upon the diagnostic priorities. In early pregnancy identifying any underlying causes of hypertension is important, whereas after 20 weeks of gestation the investigations will be tailored to making the diagnosis and determining the severity of pre-eclampsia. There will, however, be a great deal or overlap between the two situations and their investigations will be considered in tandem. Légaré & Wittman (2013)²⁴, reported that the nurses are responsible for explaining screening and diagnostic procedures and for clarifying options, so that women can make informed decisions about care.

Conclusion

The study concludes there were significant of educational program on nurse-midwives' knowledge.

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Conflict of Interest: None to declare.

Ethical Clearance: All experimental protocols were approved under the College of Nursing and all experiments were carried out in accordance with approved guidelines.

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