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Nurses' knowledge regarding treatment and prevention of pregnancy induced hypertension

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***Abstract*---**Background: Pregnancy induced hypertension (PIH) is a condition where in vasospasm occurs during pregnancy in both the small and large arteries in the body. Pregnancy Induced Hypertension is a form of high blood pressure in pregnancy. It occurs in about 5 percent to 8 percent of all pregnancies. With high blood pressure, there is an increase in the resistance of blood vessels. This may hinder blood flow in many different organ systems in the expectant mother including the liver, kidneys, brain, uterus, and placenta. The aims to assess nurses' knowledge regarding treatment and prevention of pregnancy induced hypertension and find out the association between knowledge of nurses and demographic characteristics. Methods: The study used a quantitative descriptive correlation research design. A convenience non-probability sample of 52 nurses working in primary health care centers was chosen and a self-administered questionnaire was completed. The data was gathered during a three-month period. The questionnaire's reliability is evaluated through a pilot research, and its validity is determined by a panel of (12) experts. The data is analyzed using descriptive and inferential statistical data analysis methods such as frequencies, percentages, mean of scores, and standard deviation. Results: The findings suggest that the research group of 20–29 year olds in (75 percent). In the study sample, female nurses outnumbered male nurses (69.2 %). Participants in the study had a diploma in nursing as their level of education (53.8 %). The majority of nurses (53.8 %) in the study group had 1–5 years of experience. Finally, in terms of training courses, the findings show that a higher percentage of the individuals in the study group do not have any training related courses (82.7 %).Conclusion: The findings of the study show that nurses' knowledge of pregnancy-induced hypertension is poor. Furthermore, the findings show that there is no

association between nurses' knowledge and their demographic characteristics. Recommendation: The study recommended the necessity of an ongoing education program to improve nurses' knowledge regarding hypertension during pregnancy.

***Keywords*---**knowledge, pregnancy induced, hypertension.

Introduction

Pregnancy-related hypertensive disorders are a frequent cause of maternal death around the world. It affects around 10% of all pregnant women worldwide. Chronic hypertension, pregnant hypertension, preeclampsia, superimposed preeclampsia, and eclampsia are all examples of this medical state. Prior to conception or before the 20th week of pregnancy, a woman may have chronic hypertension. After the 20th week of pregnancy, preeclampsia is described as a systemic condition characterized by hypertension and proteinuria, whereas eclampsia is defined as the occurrence of seizures. A systolic blood pressure of 160 mm Hg or a diastolic blood pressure of 110 mm Hg is considered severe hypertension (Tadele, et al., 2020). Pregnancy-induced hypertension is common in young, primi-gravid women. It is more common in Primi women over the age of 35, as well as with multiple pregnancies, diabetes, and obese mothers. It is more common in low-income mothers who are less likely to receive routine prenatal care (Abdalmajed, et al., 2018). Women who have any of the following characteristics should be considered to be at a higher risk of developing hypertensive disorders: Nulliparity, age 40 years, pregnancy interval of more than 10 years, family history of pre-eclampsia, multiple pregnancy, body max Index of 35 kg/m2 or higher, gestational age 32 weeks at diagnosis, previous history of pre-eclampsia or gestational hypertension, pre-existing vascular disease, and pre-existing kidney disease are all risk factors (Sinkey, et al., 2020). In pregnant women with chronic hypertension, gestational hypertension, or preeclampsia, antihypertensive medication is suggested for average Systolic Blood Pressure values of 140 mm Hg or Dystonic blood pressure measurements of 90 mm Hg. Monotherapy with oral labetalol, oral methyldopa, long-acting oral nifedipine, or other oral -blockers (acebutolol, metoprolol, pindolol, and propranolol) should be used as the initial antihypertensive therapy (Butalia, et al., 2018). Nurses can assist in identifying risk factors and risk groups for preeclampsia by taking a personal history as well as a complete medical and family history from pregnant women during the first visit. Nurses also play an important role in educating pregnant women about the dangers of preeclampsia, which can manifest as headache, nausea, vomiting, epigastric pain, dizziness, visual disturbances, dyspnea, and edema in the face and hands during the second trimester of pregnancy and during the postpartum period. Fluid imbalance and edema may cause a drop in blood pressure and an increase in body weight. Maternal evaluation includes physical examination, laboratory investigations, symptom assessment, and blood pressure monitoring in order to promote the nursing role. In severe preeclampsia, delivery is possible at any time after 34 weeks of gestation (Committee on Obstetric Practice, 2017). If undiagnosed and untreated, hypertension can result in adverse events for both the woman and her baby, such as an increased risk of maternal stroke, a lower birth weight, and an increased

risk of the baby requiring neonatal intensive care (Webster, et al., 2019). Women who do not receive antenatal care are seven times more likely to die from preeclampsia complications than women who do receive effective antenatal care. Although preeclampsia is not always preventable, many deaths that result from it can be avoided to reduce preeclampsia-related deaths. Every woman should be given proper antenatal care. Close monitoring, early detection, and treatment of preeclampsia are critical in lowering mortality associated with this disease (Sabry, et al., 2021).

Method

This is a descriptive study that was designed to assess nurses' knowledge of pregnancy-induced hypertension in primary health care centers. The study's target population consisted of nurses who worked in a maternal health care unit. The study employed both purposeful and convenient sampling techniques. 52 nurses participated in the study. The participants were chosen at random from among those found in the maternal care unit. The sampling instrument was a questionnaire with values such as multiple-choice. To collect data from study participants, the instrument was divided into two tools, as follows: Part one consists of demographic characteristics such as age, gender, education level, years of experience, and participation in training sessions. Part two: total knowledge about treatment and prevention of pregnancy induced hypertension. Nurses were developed based on an extensive review of related studies and available literature to assess nurses' knowledge of pregnancy-induced hypertension. To increase the validity of the questionnaire; it was presented to 13 experts in various fields. Experts were asked to provide feedback and suggestions on each item of the study questionnaire in terms of its linguistic appropriateness, association with the dimension of study variables to which it was assigned, and suitability for the study population context. The reliability of the study instruments means making sure that the answer will be almost the same, if it is repeatedly applied to the same people, at different times. Reliability coefficient using the sample coefficient of Alpha Cronbach.

Result

Table (1)
Descriptive Statistic of Demographic Characteristics of the Study Group

Variable		study group	
		F.	%
Age	20-24	20	38.5
	25-29	19	36.5
	30-34	4	7.7
	35 and >	9	17.3
	Total	52	100.0
Gender	Male	16	30.8
	Female	36	69.2
	Total	52	100.0
Level of education	school Nursing	15	28.8
	Diploma in	28	53.8

	Nursing Bachelor in nursing	9	17.3
	Total	52	100.0
Years of Experience	1-5	28	53.8
	6-10	14	26.9
	11 and >	10	19.2
	Total	52	100.0
Training Courses	Yes	9	17.3
	No	43	82.7
	Total	52	100.0

F=Frequency, %= percent, >=greater than

Table (1) reveals that the majority of the samples were aged 20–29 years old in the study group (75%). In terms of gender, female nurses outnumbered male nurses in the study sample (69.2%).in terms of level of education; the study participants expressed a diploma in nursing (53.8%). In terms of years of experience, the majority of nurses in the study sample (53.8%) had 1–5 years of experience. finally, regarding the training courses; the study results reveal that more subjects in the study group don't have training related courses with a percentage (82.7%).

Table (2)
Nurses' Responses Regarding to Knowledge about Pregnancy Induced Hypertension

Total knowledge				
Level of knowledge	F.	%	Mean	SD.
Poor	39	75.0	1.25	.473
Fair	13	25.0		
Total	52	100.0		

F. =Frequency; %= percentage; SD. = standard Deviation ;(poor=1-1.4; Fair= 1.5-1.7; Good 1.8-2)

Table (2): Results illustrated that the (75%) of nurses expressed a poor level of knowledge at the studies sample (mean= 1.25; SD= 0.473) with regard pregnancy induced hypertension.

Discussion

Part-I: Discussion of the nursing demographic characteristics, as shown in table (1)

According to the analysis of demographic characteristics shown in table (1), the majority of nurses in the study sample (75%) were aged 20–29 years old. This finding is consistent with (Ayed, & Ibrahim, 2021) finding that the majority (73.3%) of the studies were (21-30) years old. In terms of gender, the study results show that female nurses outnumbered male nurses in study samples (69.2 (%. These findings are consistent with those of (Olaoye, et al., 2019). Who discovered that 70.9 % of the study sample was female; (Angelina, et al., 2020) discovered that 84.3% of the study nurses were female. Education level (53.8%) percent of

study participants held a nursing diploma. These findings are consistent with the findings of (EL Sebaey Soliman, et al., 2021) reported that (61.7) percent of the study nurses had a diploma or had graduated from an institute. According to the study findings, a higher percentage of nurses in the study and control groups had 1–5 years of experience, with percentages of (53.8%).These findings are consistent with (Shaheen, 2020), finding that 51.3 percent of the nurses studied had less than five years of experience. Finally, in terms of training courses, the study results show that more subjects in the study samples (82.7%) did not have training courses. These findings support the findings of (Abdelhakm, 2017), who found that the majority (87.5 percent) of participants did not have a training related course.

Part-II: Nurses' knowledge toward pregnancy induced hypertension, as shown in tables (2)

In table (2), the findings demonstrated evaluation of the study sample responses with knowledge of pregnancy-induced hypertension. The results indicate that the nurses' knowledge is poor. Findings show that (75%) of nurses expressed a poor level of knowledge of measurement with regard to pregnancy-induced hypertension. This result is supported by (Stellenberg, & Ngwekazi, 2016), who show this study identified wide gaps in the knowledge of midwives about HDPs, including their assessment, diagnosis, and management.

Concerning the comparison between nurses' knowledge and their demographic characteristics, the present finding shows that there are no significant differences between nurses' knowledge levels and demographic characteristics such as gender, age, education level, and years of experience in the studies sample. These findings agree with the findings of the study done by (EL-BAHY, et al., 2013), which showed that no statistically significant differences were found between mean knowledge scores towards age, place of work and years of experience in the health field.

Conclusion

The findings of the study show that nurses' knowledge of pregnancy-induced hypertension is poor in Treatment and Prevention. Furthermore, the findings show that there is no association between nurses' knowledge and their demographic characteristics such as: age, gender, level of education, years of experience, Training Courses.

Recommendations

The study recommended the necessity of developing continuous educational programs to educate and train nurses and all health care workers regarding pregnancy induced hypertension, as well as further studies are required to evaluate the nurses practice toward treatment and prevention pregnant women with gestational hypertension.

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References

1. Tadele, W., Debebe, F., Tadele, A., & Tilahun, L. (2020). Assessment of knowledge and practice of nurses working in gynecology emergency room towards pregnancy induced hypertension in selected government public hospitals found in Addis Ababa, Ethiopia.
2. Abdalmajed, S. A. S. (2018). Nurses' Knowledge regarding Nursing Care of Pregnancy Induced Hypertension at Kassala Saudi New Hospital, Kassala State, Sudan (2018) (Doctoral dissertation, University of Gezira).
3. Sinkey, R. G., Battarbee, A. N., Bello, N. A., Ives, C. W., Oparil, S., & Tita, A. T. (2020). Prevention, diagnosis, and management of hypertensive disorders of pregnancy: a comparison of international guidelines. Current hypertension reports, 22(9), 1-10.
4. Butalia, S., Audibert, F., Côté, A. M., Firoz, T., Logan, A. G., Magee, L. A., ... & Canada, H. (2018). Hypertension Canada's 2018 guidelines for the management of hypertension in pregnancy. Canadian Journal of Cardiology, 34(5), 526-531.
5. Committee on Obstetric Practice. (2017). Committee Opinion No. 692: emergent therapy for acute-onset, severe hypertension during pregnancy and the postpartum period. Obstetrics and gynecology, 129(4), e90-e95.
6. Webster, K., Fishburn, S., Maresh, M., Findlay, S. C., & Chappell, L. C. (2019). Diagnosis and management of hypertension in pregnancy: summary of updated NICE guidance. Bmj, 366.
7. Ahmed Mohammed Sabry, F., Ahmed Galal Atia, H., & Kamal Abd Elkhalek, N. (2021). Effect of PRECEDE Model Educational Program on Nurses' Knowledge and Attitude toward Health Promotion of preeclampsia. Egyptian Journal of Nursing and Health Sciences, 2(2), 137-158.
8. Ayed, A. Y., & Ibrahim, R. H. (2021, October). Effect of Educational Program of Eclampsia Management on Knowledge of Maternity Nurses at Mosul Teaching Hospitals. In 1st International Ninevah Conference on Medical Sciences (INCMS 2021) (pp. 175-180). Atlantis Press.
9. Olaoye, T., Oyerinde, O. O., Elebuji, O. J., & Ologun, O. (2019). Knowledge, perception and management of pre-eclampsia among health care providers in a maternity hospital. International Journal of Maternal and Child Health and AIDS, 8(2), 80.
10. Angelina, J. A., Kibusi, S. M., Mwampagatwa, I., & Ernest, A. (2020). Knowledge on Prevention and Management of Preeclampsia and Eclampsia among Nurses in Primary Health Settings: Baseline Findings from an Interventional Study in Dodoma Region, Tanzania. The East African Health Research Journal, 4(1), 33
11. EL Sebaey Soliman, D., Abd El Hakeem Hasneen, S., Ouda AbdElmoniem, S., & Kamal Ali, F. (2021). Assessment of Nurses Knowledge and Practices

Regarding The Use of Evidence-based for Pregnant Women with Pre-eclampsia. Journal of Nursing Science Benha University, 2(2), 498-513.
12. Shaheen, A. P. A. (2020). Effect of Educational Program on the Knowledge of Nurses Caring for Women with Eclampsia and Pre Eclampsia.
13. Abdelhakm, E. M., & Said, A. R. (2017). Developing nursing management protocol for maternity nurses regarding emergency obstetric care. American Journal of Nursing Science, 6(5), 418-425.
14. Stellenberg, E. L., & Ngwekazi, N. L. (2016). Knowledge of midwives about hypertensive disorders during pregnancy in primary healthcare. African Journal of Primary Health Care and Family Medicine, 8(1), 1-6.
15. EL-BAHY, M. A., MOHAMED, H. I., SALAM, N. S., & NASR, E. H. (2013). Effect of educational program for nurses about pregnancy induced hypertension on their knowledge in port said hospitals. The Medical Journal of Cairo University, 81(2).