ORIGINAL ARTICLE

Assessment of Pregnant Women for Information About Hypertension in Pregnancy: A Cross Sectional Study from a Teaching Hospital Outdoor

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ABSTRACT

Background: The term "pregnancy-induced hypertension," or PIH, refers to a pattern of elevated blood pressure that appears during a woman's pregnancy. It is one of the most important factors contributing to the maternal mortality rate and infant morbidity rate worldwide. In addition to its impacts, this risk can be decreased by the transmission of health education that emphasises early identification and appropriate treatment of disease. This study aims to determine the current levels of knowledge about PIH among pregnant women in the general population.

Methods: This study was undertaken with the participation of 300 pregnant women, and data were gathered through direct interviews with the participants. The participants' verbal consent to participate in the research was acquired in the form of their acceptance to participate in the study through the use of a questionnaire prepared specifically for the research project. Both the Student T-test and the ANOVA test were utilised in order to explore the parameters associated with pregnancy awareness.

Place of Study: Hayat memorial teaching hospital

Duration of Study: August 2021 to June 2022

Results: The study shows that 80.6% of pregnant women were aware with the idea of PIH, according to the results of this survey. The first individuals they consulted in order to get knowledge were their friends and family members, followed by medical specialists. As a result of their performance, 47.1% of the participants obtained a score that indicated they had a low level of comprehension. The participants' ages, the type of family they came from, whether or not they had a history of PIH or gestational diabetes, whether or not they participated in sports, and whether or not they attended frequent antenatal care appointments were all important factors in calculating their knowledge score.

Conclusions: The outcomes of the study suggested that pregnant participants had a poor understanding of PIH; this underscores the importance of increasing public knowledge and education about the illness.

Keywords: Pregnancy induced hypertension (PIH), Preeclampsia

INTRODUCTION

PIH is the abbreviation for pregnancy-induced hypertension. 1-preeclampsia 2-extensive hypertension In pregnant women, third-trimester hypertension is a pattern of elevated blood pressure. It is a leading cause of perinatal morbidity and maternal mortality worldwide. It annually kills 75,000 mothers and 500,000 infants. 18% of maternal deaths were caused by PIH, second only to haemorrhage. PIH is the third most prevalent risk factor for maternal death. Preeclampsia may account for 16 percent of maternal mortality in developing countries, 25 percent in Latin America, and 10 percent in Asia and Africa. According to the annual statistics report from the Ministry of Health, maternal hypertension caused 11.9% of mother fatalities in 2016. After postpartum haemorrhage and pulmonary embolism, it is the third leading cause of maternal mortality. The National High Blood Pressure Education Program (NHBPEP) has identified four forms of hypertension associated with pregnancy: During pregnancy, preeclampsia and hypertension can occur. Eclampsia, preeclampsia, and chronic hypertension can coexist. In the second trimester, a woman with normal blood pressure and no signs of preeclampsia may develop gestational hypertension. Women with normal blood pressure are able to develop gestational hypertension. Eclampsia/Preeclampsia: Hypertension with proteinuria or that affects target organs in normotensive women after the 20th week of pregnancy. The medical term for preeclampsia with seizures is eclampsia. First-time mothers, numerous births, persistent hypertension, and type 2 diabetes are all risk factors for preeclampsia. Other risk factors include advanced maternal age, a high body mass index, first-time motherhood, and multiple births. 5–30% of multichild pregnancies are affected by preeclampsia. The risk of preeclampsia increases. PE diagnosis Blood pressure of less than 140/90 mmHg on two separate occasions, at least two to four hours apart, plus one or more of the following: proteinuria on dipstick testing in clean catch urine specimens taken at least four hours apart and continuing throughout pregnancy, or protein excretion of more than 300 mg in a 24-hour urine specimen. Also possible are severe headaches, visual anomalies, oliguria, epigastric or right hypochondrial discomfort, edoema, nausea, and vomiting. PE can result in ischemic heart disease, stroke, liver and kidney damage, abruptio placentae, DIC, and HELLP syndrome in both mother and child (hemolysis, elevated liver enzyme levels, and low platelet count). During pregnancy, women are susceptible to a variety of issues, including but not limited to growth restriction, foetal discomfort, preterm birth, stillbirth, and newborn hypoxia. Both the prevention and treatment of diseases stand to benefit substantially from an increase in knowledge and awareness.

When people discuss their knowledge, they are referring to their level of understanding of a certain subject. According to estimates, adequate patient education and counselling can prevent fifty percent of issues. As a result, it is of even greater importance for women with PIH to obtain knowledge about and recognise the concerning characteristics connected with PIH, as well as to seek the necessary medical care.

METHODOLOGY

At the Gynecology and Obstetrics Teaching Hospital in Lahore, Pakistan, both the outpatient clinic and the inpatient wards participated in a cross-sectional research project. The research was conducted at the Lahore, Pakistan Gynecology and Obstetrics Teaching Hospital. During the data collection process, which lasted approximately three hours per day, five days per week, from the 1st of February 2022 to the 1st of August 2022, a purposeful and convenient sampling of 300 pregnant women who attended a gynaecology and obstetrics teaching hospital in for any reason was conducted. Included in the sample group were women who visited the hospital for whatever reason. a one-of-a-kind questionnaire that was designed for the purpose of the study and was based on interviews directly with pregnant moms. The questionnaire was developed using the results of the interviews. It

consists of three components: socio-demographic data, which includes age, marital status, occupation, residence (rural or urban), education level, economic level, and the type of family unit they come from; geographical data, which includes where they reside; and economic data, which includes how much money they earn (nuclear or extended). The second portion discusses the obstetric and medical history of the patient. This section addresses the gestational age, parity, history of gestational and chronic hypertension, history of gestational diabetes, and family history of PIH of the patient. The third section of the exam is a test of your general knowledge consisting of ten questions with no response spaces. These questions cover the signs and symptoms, consequences, and preventative strategies associated with PIH. Utilizing a pilot study with the participation of pregnant women excluded from the main study, the questionnaire's usability was validated. A few modifications were made to the questionnaire based on the results of the pilot study in order to establish whether or not the questionnaire could be used and to address and resolve any hurdles or other issues that might arise throughout the data collection process. Participants who were pregnant at the time of the study were omitted from the final analysis. Each participant in the interview gave verbal informed consent prior to the start of the session.

RESULTS

There were a total of 300 pregnant women participated in the interviews, with a mean age of 24.1+2.4 years. The average duration of pregnancy was 32.2+4.1 weeks on average. 90 of the pregnant participants of the total, were first-time mothers, while 210 of the pregnant participants of the total were primigravida,. 52% women had never heard of PIH, compared to 242 who were aware of or had heard of the condition. 240 pregnant individuals in the study were familiar with or had heard about PIH. Approximately 149 learned about PIH through their families and friends, 24.9% of participants learned about PIH from medical professionals, 8% of participants learned about PIH via the media, and 2.4%) individuals heard about PIH. , around 19.8% of the participants had enough knowledge of PIH. The following table illustrates the relationship between various socio-demographic factors and the total knowledge scores of the participants. Regarding the relationship between Certain Obstetrical and Gynecological Conditions, Your Past Medical History, and Your Knowledge Scoring: It was discovered that a history of both PIH and gestational diabetes were strongly associated with a higher knowledge score.

Table 1 Distribution of certain obstetric, gynecological, previous medical and familial histories among pregnant individuals

Variable		Percentage
Weeks of Gestation	<14 weeks	9.1%
	14-28 weeks	43.6%
	>28 weeks	47.3%
Past Medical History of PE	+ve	9.9%
	-ve	90.1%
Past Medical History of Chronic Hypertension	+ve	4%
	-ve	96%
Past Medical History of Gestational Diabetes	+ve	3.2%
	-ve	96.8%
Family History of Gestational Hypertension	+ve	14.7%
	-ve	79.2%
	Don't know	6.1%
History of Practicing Sport	Yes	11.9%
	No	88.1%
History of Folic Acid Intake	Yes	79.9%
	No	20.1%
Regular Antenatal Care Visits	No	84.2%
	Yes	15.8%

Table 2 Some Obstetrics, Gynecological, and Past Medical History in Relation to Knowledge Scoring:

Variables		Scoring of pregnant knowledge	
		Mean (±SD)	Significant
Weeks of Gestations	First trimester	17(±5.1)	0.82
	Second trimester	18.1(±4.8)	
	Third trimester	17.8(±4.9)	
Past Medical History of PIH	+ve	20.9(±4.8)	0.001
	-ve	17.6(±4.9)	
Past Medical History of Chronic Hypertension	+ve	21(±5.8)	0.37
	-ve	17.2(±4.8)	
Past Medical History of Gestational Diabetes	+ve	21(±5.9)	0.01
	-ve	18.1(±4.9)	
Family History of PIH	+ve	18.1(±5.9)	0.179
	-ve	18.3(±5.2)	
	Don't know	14.7(±1)	
History of Practicing Sport	Yes	20.9(±4.8)	0.001
	No	18.1(±4.9)	
History of Folic Acid Intake	Yes	17.9(±5.7)	0.301
	No	17.4(±5.1)	
Regular Antenatal Care Visits	No	18.2(±4.9)	0.014
	Yes	21.1(±4.9)	

DISCUSSION

Only 18.3% of participants in the present study were unaware of PIH, compared to 80.6% of pregnant participants and non-pregnant participants who were aware of the disease. These findings were consistent with a 2009 research examination done in Nigeria. Friends and family members were the participants' primary source of information 63.5% of the time, followed by medical professionals 25.3% of the time, the media 9.1% of the time, and schools or universities 2.5% of the time. Unhappily, the results of our survey did not reveal that health care practitioners were the most common source of information, which may be one of the contributing factors to their lack of awareness regarding PIH. According to the results of a study conducted by Wilkinson (2018) in the state of Utah, the top information sources were websites, family and friends, and medical practitioners. According to the findings of a different survey conducted by Fadare (2016) in Nigeria, hospitals and clinics were the most popular information sources. The findings of both of these studies are consistent with these findings. In a study conducted by Salim and Kuriakose (2017), parents, friends, and relatives were identified as the key sources of knowledge. In our investigation, we discovered sources of knowledge that were equivalent to those identified by Salim and Kuriakose (2017). The second most popular source of knowledge was the health professionals, followed by parents, acquaintances, and relatives. A stunning majority of pregnant participants, 47.1%, had a lack of comprehension, according to the findings of this study. This is comparable to a study that Eze (2018) did in India in 2014 and in Iran in 2006. These nations are both located in South Asia. Only 20.7% of the sample had an adequate understanding of PIH, a relatively low percentage. Which contradicts the findings of a study conducted and published by Wilkinson (2018), which revealed that a bigger number of people had a high level of awareness. Regarding the factors determined to have a relationship with the knowledge score, it was found that the age of the participants had a substantial relationship with the knowledge score (it was also discovered that the scores of the participants climbed as their ages did as well). This is congruent with the findings of a study conducted by Namath Jos (2010); nevertheless, Muhammad Safvan (2014) shown that there is no correlation between age and knowledge score in a separate study. In this

particular research effort, it was discovered that the type of family has a significant relationship with the knowledge score. Pregnant women residing in nuclear homes had a higher knowledge score than those residing in extended families. This may be due to the mother's ability to take care of a large amount of her personal needs; as a result, she will experience substantially less stress than she would if she lived in a household with a larger number of other relatives. This contradicts the conclusions of a study conducted in India by Namath Jos (2010), who discovered that there is no significant correlation between family type and knowledge score. They discovered that there was no link between the two variables. In contrast, a 2014 study conducted in Zabol (a city in India) indicated a substantial correlation between educational level and PIH understanding. In addition, no significant correlation was found between the individual's socioeconomic status, occupation, or residential location and the knowledge score they received. This conclusion is congruent with the results of an investigation conducted by Safvan in India (2014). According to the study's findings, there was no significant correlation between the knowledge score of pregnant women and their occupation, monthly income, gravida, or gestational age. Those participants with a favourable medical history during pregnancy, including gestational hypertension and diabetes, scored better on the knowledge section than those with a negative medical history during pregnancy. This is because a woman's history of diabetes and gestational hypertension during pregnancy is strongly correlated with her knowledge score. The findings of this study are comparable to those from 2013 research conducted in India. Pregnant women who participated in sports had much higher knowledge scores and associations than pregnant women who did not participate in sports. This is in contrast to pregnant women who do not engage in physical activity. There was a substantial correlation between the level of knowledge the pregnant participants had and the number of prenatal checkups they attended. Women who were pregnant but did not receive regular prenatal appointments showed poorer levels of comprehension. ANC not only offers pregnant women with the resources they need to care for themselves and their children, but it may also assist them in recognizing the alarming indicators of preeclampsia during pregnancy and birth.

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