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Raising awareness for women with pregnancy induced Hypertension regarding the importance of the antenatal care

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Abstract
Pregnancy-induced hypertension was defined as new hypertension (systolicBP≥140 mmhg and/or diastolic BP ≥ 90 mmhg) that appears after 20 weeks or more gestational age of pregnancy with or without proteinuria (includes preeclampsia, eclampsia, and gestational hypertension). Pregnant mothers diagnosed with pregnancy induced hypertension during the data collection period in the selected antenatal care clinic of the hospitals were included as exposed participants and women without PIH during the same period were also enrolled as a non-exposed participant.

Aim of study: Raising awareness for women with pregnancy induced Hypertension regarding the importance of the antenatal care.

Subjects and Methods: A quasi experimental research design was be used in this study. The study was be conducted at obstetrics and gynecology department in Aswan- university hospital, Egypt. Purposive sample was be for this study (10 0 pregnant).

Tools: Three tools were utilized to collect data.

Tool I: assessment sheet Knowledge regarding pregnancy induced hypertension.

Tool II: Assessment sheet pregnant women regarding antenatal care with pregnancy induced hypertension,

Tool III: assessment sheet Obstacle assessment sheet regarding performing antenatal care in Upper Egypt.

Results: Majority of pregnant Showed good total knowledge regarding pregnancy induced Hypertension post session phases 82% Showed poor total knowledge regarding pregnancy induced Hypertension while more than 22% pre sessions phase.

Conclusion: The present study shows that less than half 45% of the studied pregnant women take their knowledge from friends, while minority 8% of the studied pregnant women takes their knowledge from internet, the study results illustrates that there is high statistically significant positive correlation between total knowledge regarding pregnancy induced hypertension and total knowledge regarding antenatal care at post sessions phases.

Recommendation: Based on our study finding there are some recommendations to get the proper improvement on PIH among the pregnant women as follows: there is need for improving the knowledge of pregnant women about PIH by health education programs and instruction booklets throughout the wards of the hospital Eencourage earlier booking visit in the first 12 weeks of pregnancy.

Keywords: Awareness, pregnancy induced Hypertension, antenatal care

Introduction

Hypertension during pregnancy is defined as a systolic blood pressure more than or equal to 140 mmHg and/or a diastolic blood pressure more than or equal to 90mmHg and the diagnosis generally requires Two separate measurements. Hypertension disorders of pregnancy are classified into four categories: chronic/pre-existing hypertension, gestational hypertension that appears after 20 weeks' gestation and normalizes after pregnancy, preeclampsia–eclampsia, and chronic hypertension with superimposed preeclampsia–eclampsia that develops signs and symptoms of preeclampsia or eclampsia after 20 weeks' gestation (American College of Obstetricians and Gynecologists, 2019) [3].

Preeclampsia as the presence of new-onset hypertension and proteinuria or other end-organ damage occurring after 20 weeks of gestation. PE is a multisystem syndrome that is primarily defined by the development of new onset hypertension, persistent systolic blood pressure [SBP] of 140 mm Hg or higher or diastolic blood pressure [DBP] of 90 mm Hg or higher after 20 weeks' gestation in a woman with previously normal blood pressure (Brown *et al*. 2018) [5].

Antenatal care played an important role in diagnosing, curing, and preventing the hypertensive disorders of pregnancies. Frequent follow-up, assessment of blood pressure, and the search for proteinuria form the cornerstone of antenatal screening of all pregnant women for PIH and

her fetus which can prevent maternal and fetal mortality and morbidity (Mekie *et al*., 2021) [11].

Aim of the study

This study of the aim is to raise the awareness for woman with pregnancy induced hypertension regarding the importance of the antenatal care. This aim will be achieved through the following objectives:

1. Assess pregnant women' knowledge regarding pregnancy induced hypertension
2. Assess pregnant women' knowledge regarding antenatal with pregnancy induced hypertension
3. Design educational sessions about antenatal care for women with pregnancy induced hypertension
4. Apply educational sessions about antenatal care for women with pregnancy induced hypertension
5. Evaluate the effect of the educational sessions on woman with pregnancy induced hypertension.

Subject and methods

Research hypothesis

After implementation of the study the level of awareness of the studied women will be raised.

Research design

A quasi experimental research design was used in this study. Quasi-experimental research design is an empirical study used to estimate the causal impact of an intervention on its target population without random assignment. Quasi-experimental research shares similarities with the traditional experimental design or randomized controlled trial, but it specifically lacks the element of random assignment to treatment or control.

Quasi-experimental designs typically allow the researcher to control the assignment to the treatment condition, but using some criterion other than random assignment (Scott, *et al*., 2020).

Setting

The study was conducted at obstetric and gynecology department in Aswan- university hospital. This hospital is providing outpatient and inpatient obstetrical and gynecological services. This hospital was chosen because it is the main educational hospital at Aswan governorate, Egypt, where most pregnant women deliver and receive healthcare services and it is the referral hospital for all cities in Aswan.

Sampling

Type of the sample

Purposive sample was utilized in the current study.

Sample size

The sample size was (100) that included all pregnant women that was attended at setting within 3 months

Inclusion criteria

Women 1st diagnosed with pregnancy induced hypertension

Tools for data collection are

Two types of tools were used for data collection:

Tool 1: Interview questionnaire developed by the investigator after reviewing the related current and previous literature to collect data about the subjects.

Part 1: Demographic questionnaire used to collect personal characteristics such as (age, occupation, educational level, and residence). (Anita *et al*., 2018) [4] (Eman Abbood Al Ebrahimy, *et al*., 2019) [2].

Part 2: Obstetrics and gynecological history of pregnant women sheet. This tool was developed by (Eman Abbood Al Ebrahimy, *et al*., 2019) [2] to assess (Pregnant period per week, The number of pregnancies, The number of abortions, Had blood clots during pregnancy, Admitted to intensive care unit, Complications occur during pregnancy, delivery month, Place of birth, The result of delivery, Complications occur after childbirth and types of breast feeding) family history such as (medical history of preeclampsia, diabetes, hypertension, kidney disease, respiratory failure and heart failure) (Eman Abbood Al Ebrahimy, *et al*., 2019) [2].

Tool 2: Pregnant Women Knowledge Assessment Questionnaire. This tool developed by the researcher after reviewing the relevant literature it composed of three parts as follows:

Part 1: Pregnant women knowledge assessment sheet to assess pregnant Knowledge regarding pregnancy induced hypertension. This tool were developed by **(**Zohora *et al*., 2022) and adapted by a researcher after reviewing the relevant literature this part was included data as (definition of PIH, beginning of PIH, Pregnant women recover from PIH, risk of PIH, causes, risk factors, signs and symptoms, and complication). (Zohora *et al*., 2022).

Part 2: Pregnant women knowledge assessment sheet to assess antenatal care with pregnancy induced hypertension This tool was developed by (Anita *et al*., 2018) [4] and adapted by a researcher after reviewing the relevant literature this part included data as (Neglecting pregnancy antenatal care effect on the diagnosis of PIH, Regularly follow up on pregnancy, any medications that were taken without the doctor's prescription, Medications that were prescribed by the doctor taken regularly, Types of food that cause hypertension, importance of the antenatal care, PIH affect the growth of the fetus, Follow-up blood pressure measurements for women with PIH, Complaining of symptoms and noticed of foot swelling). (Anita *et al*., 2018) [4].

There were ten questions for the assessment of antenatal care with on pregnancy induced hypertension, the (Yes) answer was given a score point of one and the (Zero) answer was given a score of zero. Pre and post-test was done.

Validity

The developed tool was formulated and submitted to five experts in obstetric and gynecology nursing to assess the content validity, needed modifications will be done.

Reliability

Cronbach's Alpha was used to determine the internal reliability of the tool.

Pilot study

The pilot study was done on 10% of the sample to examine the clarity of questions and time needed to complete the study tools. Based on the results, modification was done (if necessary). Subjects included in the pilot study was excluded from the study if major modifications were required.

Result

Table 1: Distribution of demographic characteristics of studied pregnant women with pregnancy induced Hypertension (n=100).

Demographic characteristics		No.	%
Age (years)	<20	5	5.0
	20 - <30	32	32.0
	30 – < 40	60	60.0
	>40	3	3.0
	Mean ± SD 37±2.345		
Occupation	Work	18	18.0
	Housewife	82	82.0
Educational level	Can't reading & write	13	13.0
	Primary school	5	5.0
	Preparatory school	9	9.0
	Secondary school	59	59.0
	University / institute	12	12.0
Residence	Rural	66	66.0
	Urban	34	34.0

Table (1) shows that three fifths 60% of the studied pregnant women had age 30 – < 40 years, most 82% of the studied pregnant women are house wife, also more than half 59% of the studied pregnant women have secondary school, and nearly two thirds 66% of the studied pregnant women live in rural area

Table 2: Distribution of obstetric and medical history of studied pregnant women with pregnancy induced Hypertension (n=100).

Obstetric & Medical history	No.	%
Pregnant period per week		
25 < 30 week	5	5.0
30<35 week	14	14.0
35-39 week	81	80.0
Mean± SD 37±2.15		
The number of pregnancies		
1<3	22	22.0
4<5	65	65.0
≥5	13	13.0
Mean± SD 4±1.75		
The number of abortions		
1<3	32	32.0
4<5	56	56.0
≥5	12	12.0
Mean± SD 4.3±6.14		
blood clots during pregnancy	12	12.0
Admitted to intensive care unit	17	17
Complications occur during pregnancy		
Bleeding during pregnancy	21	21.0
Preeclampsia	63	63.0
Constipation	34	34.0
Psychological stress	38	38.0
Infection during pregnancy	38	38.0
Weakness or loosening of the cervix	3	3.0
other diseases (Chronic headache)	6	6.0
In what month were your delivery		
Before the seventh month	13	13.0
In the seventh month	23	23.0
In the eighth month	21	21.0
The ninth month	43	43.0
Obstetric & Medical history	**No.**	**%**
Place of birth		
In the hospital	83	83.0

Private clinic	17	17.0
The result of delivery		
Mature	52	52.0
Premature	27	27.0
Stillbirth	21	21.0
Complications occur after childbirth		
Chronic Hypertension	10	10.0
Clot formation	0	0. 0
Preeclampsia after pregnancy	34	34.0
Kidney diseases	13	13.0
Breast-feeding		
Natural	55	55.0
Artificial	45	45.0

Table (2) illustrates that the most 80% of the studied pregnant women have 35-39 week of pregnancy period per week with Mean± SD 37±2.15, nearly two thirds 65% of the studied pregnant women have 4<5 number of pregnancies Mean± SD 4±1.75 and more than half 56% of the studied pregnant women have 4<5 number of abortions for studied pregnant women Mean± SD 4.3±6.14. Moreover, minority 12% &17% of studied pregnant women have blood clots and admitted to intensive care unit during pregnancy respectively. Regarding complication during pregnancy, less than two third 63% of studied pregnant women have preeclampsia and more than one third 38% of studied pregnant women have psychological stress and Infection during pregnancy.

Also, demonstrates that more than two fifth 43% of studied pregnant women delivery in the ninth month, most 83% of studied pregnant women birth in hospital, more than half 52% of studied pregnant women birth mature baby, more than one third 34% of studied pregnant women have preeclampsia after pregnancy and more than half 55% of studied pregnant women have natural breast feeding.

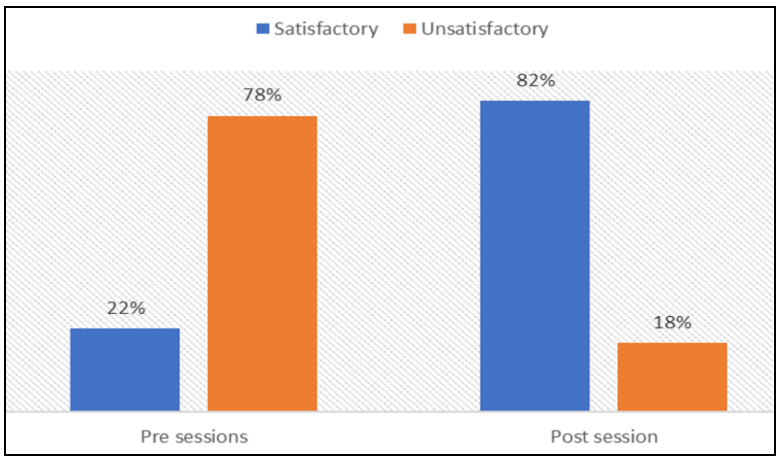

Fig 1: Distribution of the studied pregnant women total knowledge level regarding pregnancy induced hypertension (n=100)

Figure (1) illustrates that more than one fifth 22% of the studied pregnant women have satisfactory level of knowledge regarding pregnancy induced Hypertension at pre sessions phase, While most 82% of the studied pregnant women have satisfactory level of knowledge at post session phases.

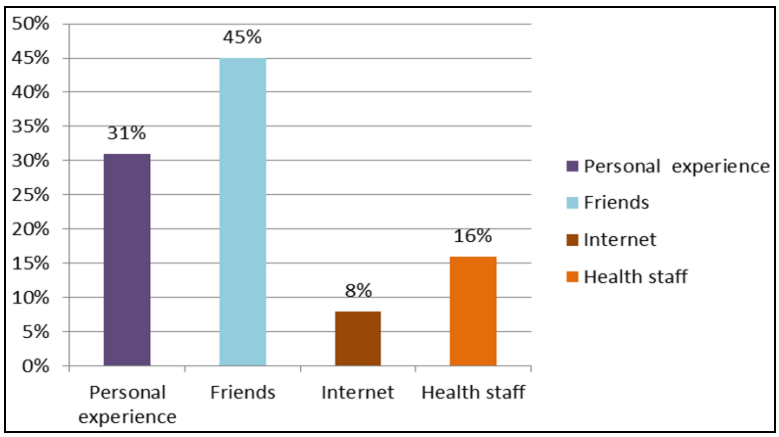

Fig 2: Distribution of the studied pregnant women regarding sources of knowledge about pregnancy induced hypertension (n=100)

Figure (2) shows that less than half 45% of the studied pregnant women have their knowledge from friends, while minority 8% of the studied pregnant women have their knowledge from inter

Table 3: Relation between demographic characteristics of studied pregnant women and their knowledge regarding antenatal care (n=100).

Demographic characteristics		Pre		post		X2	P-value2
		Satisfactory (n=42)	Unsatisfactory (n=58)	Satisfactory (n=78)	Unsatisfactory (n=22)		
		No.	%	No.	%		
Age (years)	<20	2	3	5	0	.947	.657
	20 - <30	15	7	22	10		
	30 – < 40	24	36	50	10		
	>40	1	2	1	2		
Occupation	Work	10	8	10	8	.824	.012*
	Housewife	32	74	68	14		
Educational level	Illiterate	10	3	13	0	6.171	.015*
	Primary School	5	0	2	3		
	Preparatory School	1	8	4	5		
	Secondary School	16	43	55	4		
	University/institute	10	2	2	10		
	Postgraduate student	0	0	0	0		
Residence	Rural	40	26	44	20	12.725	.467

Table (3) shows that there is statistically significant difference between total knowledge regarding antenatal care of studied pregnant women and their occupation and education. On other hand that there is no statistically significant difference between total knowledge of studied pregnant women and their age and residence

Table 4: Correlation between the studied pregnant women' knowledge regarding pregnancy induced hypertension and antenatal care through sessions phases (n=100).

Studied variables	pre		post	
	Total knowledge regarding pregnancy induced hypertension		Total knowledge regarding antenatal care	
	r	p	R	p
Total knowledge regarding pregnancy induced hypertension	-	--	.892	.0045**
Total knowledge regarding antenatal care	1.245	.0267*	---	----

(*) Statistically significant at $p<0.05$. (**) highly statistically significant at $p<0.01$

Table (4) illustrates that there is high statistically significant positive correlation between total knowledge regarding pregnancy induced hypertension and total knowledge regarding antenatal care at post sessions phases. Also that there is statistically significant positive correlation between total knowledge regarding pregnancy induced hypertension and total knowledge regarding antenatal care at pre sessions phases.

Discussion

Regarding the demographic characteristics of the studied pregnant women with pregnancy induced Hypertension the study finding showed that less than two thirds 60% of the studied pregnant women had age 30 – < 40 years, most 82% of the studied pregnant women are house wife, also more than half 59% of he studied pregnant women have Secondary school, and two thirds 66% of he studied pregnant women live in rural area These results are in agreement with those Elbana, Abd Elhady & Mohammed. (2022) [6] who carried out their study about **"**Self-Care Management Program Utilization among Antenatal Mothers with Pregnancy-Induced Hypertension" showed that the study sample age was above 30 years with a mean age of 28.34 and more than half of educated to the secondary level. Additionally, about two thirds of studied women were from rural area. Moreover, more than two thirds of the studied sample not employed.

In the same line these finding supported by Ahmed *et al*., (2022) [1], who carried out their study about "Impact of Self-Care Guidelines on Women's Awareness and Identification of Early Signs and Symptoms of Preeclampsia" and reported that was above 30 years with a mean age of 28.34 and more than half of educated to the secondary level. Additionally, about two thirds of studied women were from rural area. Moreover, more than two thirds of the studied sample not employed. Also, these results were in same line with those of Muntaha *et al*. (2018) In a study about "Self-care management of pregnancy induced hypertension for pregnant women attending primary health care centers in Kirkuk City, it was found that most pregnant women were between the ages of 30 and 34. Also, Sharma *et al*. (2019) [14] which study about "Status and determinants of birth preparedness and complication readiness in a rural block of Haryana" showed that the uppermost percentage of women was completed secondary level of education and were from rural area and majority of them were unemployed. On other hand, these results were different from those of Fadare *et al*. (2019) [9] reporting the study conducted about "Pregnant Women's Knowledge and Attitudes towards Pregnancy-Induced Hypertension Management" in Southwest Nigeria that most women"s age were between 21 and 30 and most of the participants had a tertiary education,

according to their educational qualification distribution pattern. The majority of those who took part were self-employed. Moreover, Salim., (2019) reporting the study conducted about "Women's Knowledge of Gestational Hypertension and Self-care Measures among Primgravid Women" proved that majority of the sample had high school education.

Also, the study result disagree with Jena & Mohapatra, (2019) [12] who conducted their study about "A retrospective study of socio-demographic factors in pregnancy-induced hypertension in a tertiary care hospital in eastern India" reported that majority of cases were in age group of 21- 25 years. Also, these results is not consistent with Belay & Wudad, (2019) who conducted a study about "Prevalence and associated factors of preeclampsia among pregnant women attending anti-natal care at Mettu Karl referal hospital, Ethiopia: cross sectional study ". They found that more than half of pregnant women living in the urban areas.

Concerning medical and obstetric history of studied women, the results of the current study evidence that studied pregnant women have 35-39 week of pregnancy period per week. Also, two thirds of the studied pregnant women have 4<5 number of pregnancies. Additionally, more than half had history of abortion. Moreover, minority of studied pregnant women have blood clots and admitted to intensive care unit during pregnancy respectively. Regarding complication during pregnancy, less than two third of studied pregnant women have preeclampsia and more than one third of studied pregnant women have psychological stress and Infection during pregnancy.

In the same line these finding supported by Verma *et al*. (2020) [15] who conducted their study about "Risk Factor Assessment for Preeclampsia" found that most cases of pre-eclampsia had the previous history of abortion and had blood clots. Moreover, Jim *et al*. (2020) [13] who conducted a study entitled "Hypertension in pregnancy": a comprehensive update reported that less than two third of studied pregnant women have preeclampsia and more than one third of studied pregnant women have psychological stress and Infection during pregnancy.

Regarding studied pregnant women's total knowledge about pregnancy induced Hypertension through pre and post sessions, the present study demonstrates that minority 9% of studied women have satisfactory level of knowledge regarding causes of pregnancy induced hypertension at pre sessions phase and improve to be most 78% of them at post session phases. while two fifths of them have unsatisfactory level of knowledge regarding The risk of pregnancy induced hypertension at pre sessions phases and decreased to about one fifth 21% of them at post sessions phases.

These study finding accordance with by Sachdeva *et al*., (2019) who conducted their study about "Raising awareness for women with pregnancy induced Hypertension regarding the importance of the antenatal care" reported that majority of studied women have satisfactory level of knowledge regarding causes of pregnancy induced hypertension and agree with Anita,(2018) [4] who conducted their study about "Knowledge of antenatal women regarding pregnancy induced hypertension" reported that majority of studied women have satisfactory level of knowledge regarding causes of pregnancy induced hypertension after ending of education program. Additionally, these results agree with Elbana, Abd Elhady & Mohammed. (2022) [6] reveals that there were a highly statistically significant difference between knowledge of pregnancy induced hypertension at before and after intervention

On the opposite side, these results disagree with Al Ebrahimy, Al Jobori & Al Safi (2019) [2] who conducted their study about "Knowledge about pregnancy induced hypertension among pregnant women attending gynecology and obstetrics teaching hospital" in Kerbala, reported that minority of studied women had satisfactory level of knowledge regarding pregnancy induced hypertension. As same as, these results disagree with Fondjo *et al*., (2019) [10] reported that minority of studied women had satisfactory level of knowledge regarding preeclampsia.

Regarding to relation between socio-demographic characteristics of studied pregnant women and their knowledge regarding antenatal care, the present study revealed that there is statistically significant difference between total knowledge regarding antenatal care of studied pregnant women and their occupation and education. On other hand that there is no statistically significant difference between total knowledge of studied pregnant women and their age and residence.

The current study finding was similar to Afaya *et al*., (2020) who conducted a study entitled "Women's knowledge and its associated factors regarding optimum utilization of antenatal care" in rural Ghana revealed that majority of the women had good knowledge of antenatal care services. The determinants of women having knowledge of antenatal care services included; woman's age, woman's educational status, husband's educational status, religion, ethnicity, and the number of children.

Also, these finding congruent with Haruna *et al*., (2019) [8] who conducted a study entitled "Guided imagery for treating hypertension in pregnancy" found that there was a significant association between maternal age, area of residence, educational status, occupations, socio economic status, and knowledge on PIH respectively. Similarly, there was also a significant association between maternal age, area of residence, educational status, occupations, socio economic status, and awareness about PIH respectively.

Regarding studied pregnant women's sources of information about pregnancy induced hypertension, the present study shows that less than half 45% of the studied pregnant women take their knowledge from friends, while minority 8% of the studied pregnant women takes their knowledge from internet. These study finding agreed with by Al Ebrahimy *et al*., (2019) [2] reported that the main source of knowledge by the participants was from friends/relatives followed by health care providers, minority of the studied pregnant women takes their knowledge from media. In the same line with Eze, (2018) [7] who reported that majority source of knowledge by the participants was from friends/relatives and minority of the studied pregnant women takes their knowledge from media.

These results disagree with Ahmad *et al*., (2022) who conducted their study about "Impact of Self-Care Counseling on Quality of Life in Pregnant Women with Gestational Hypertension" reported that the main source of knowledge by the participants was from internet followed by health care providers, minority of the studied pregnant women takes their knowledge from friends.

According to correlation between the studied pregnant women' knowledge regarding pregnancy induced hypertension and antenatal care through sessions phases, the study results illustrates that there is high statistically significant positive correlation between total knowledge regarding pregnancy induced hypertension and total knowledge regarding antenatal care at post sessions phases. Also that there is statistically significant positive correlation between total knowledge regarding pregnancy induced hypertension and total knowledge regarding antenatal care at pre sessions phases.

These results is congruent with Vijayalakshmi & Jaya (2017) who conducted a study entitled "Assessment of knowledge and practice regarding Pregnancy Induced Hypertension (PIH) among the primigravid mothers with PIH" revealed that there were correlation between knowledge and practice scores, the present study revealed a highly positive association. Improving individual knowledge could help improve the practice.

These results discongruant with, Elbana., Abd Elhady & Mohammed, (2022) [6] reported that there were a highly statistically positive correlation between the studied women knowledge and self-care practice at post intervention and studied women had satisfactory level of Self-care practices management regarding PIH post intervention compared with pre intervention phases.

Conclusion

Regarding the demographic characteristics of the studied pregnant women with pregnancy induced Hypertension the study finding showed that less than two thirds 60% of the studied pregnant women had age 30 – < 40 years, most 82% of the studied pregnant women are house wife, also more than half 59% of the studied pregnant women have Secondary school, and two thirds 66% of he studied pregnant women live in rural area. Regarding studied pregnant women's sources of information about pregnancy induced hypertension, the present study shows that less than half 45% of the studied pregnant women take their knowledge from friends, while minority 8% of the studied pregnant women takes their knowledge from internet.

According to correlation between the studied pregnant women' knowledge regarding pregnancy induced hypertension and antenatal care through sessions phases, the study results illustrates that there is high statistically significant positive correlation between total knowledge regarding pregnancy induced hypertension and total knowledge regarding antenatal care at post sessions phases.

Recommendations

Based on our study finding there are some recommendations to get the proper improvement on PIH among the pregnant women as follows: there is need for

1. improving the knowledge of pregnant women about PIH by health education programs and instruction booklets throughout the wards of the hospital.
2. encourage earlier booking visit in the first 12 weeks of pregnancy.
3. The government should encourage health education on causes and prevention of the PIH and its complications.
4. pregnant mothers should take the antenatal care very seriously; pregnant mothers should be encouraged to deliver in the hospital.
5. encourage paramedical staff to involve continuing educational program in shape of workshops, training programs,
6. conferences for improving nursing care about PIH to get better mothers and neonate's health.
7. The government should provide enough health facilities and health workers regarding PIH management

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References

1. Ahmed Mohamed EM, Youness EM, Hasab Allah MF. Impact of Self-Care Guidelines on Women's Awareness and Identification of Early Signs and Symptoms of Preeclampsia. Minia Scientific Nursing Journal. 2022;12(1):2-9.
2. Al Ebrahimy EA, Al Jobori SS, Al Safi W. Knowledge about pregnancy induced hypertension among pregnant women attending gynecology and obstetrics teaching hospital in Kerbala. Karbala Journal of Medicine. 2019, 12(2).
3. American College Obstetricians and Gynecologists. ACOG practice bulletin no. 202: gestational hypertension and preeclampsia. Obstetric Gynecol. 2019, 133(1).
4. Anita S Knowledge of antenatal women regarding pregnancy induced hypertension. Indian J Cont Nsg Edn. 2018;19:109-12.
5. Brown MA, Magee LA, Kenny LC, Karumanchi SA, McCarthy FP, Saito S, *et al*. Hypertensive disorders of pregnancy: ISSHP classification, diagnosis, and management recommendations for international practice. Hypertension; c2018.
6. Elbana HM, Abd Elhady RM, Mohammed HR. Self-Care Management Program Utilization among Antenatal Mothers with Pregnancy Induced Hypertension. Journal of Medicinal and Chemical Sciences. 2022;5(1):103-115. doi: 10.26655/JMCHEMSCI.2022.1.12.
7. Eze ED, Barasa A, Adams MD, Rabiu KM, Ezekiel I, Sulaiman SO, *et al*. Determination, knowledge and prevalence of pregnancy-induced hypertension/eclampsia among women of childbearing age at Same District Hospital in Tanzania. International Journal of Medicine and Medical Sciences. 2018;10(2):19-26.
8. Haruna M, Matsuzaki M, Ota E, Shiraishi M, Hanada N, Mori R. Guided imagery for treating hypertension in pregnancy. Cochrane Database Syst Rev. 2019, (4).
9. Fadare RI, Akpor OA, Oziegbe OB. Knowledge and attitude of pregnant women towards management of

pregnancy-induced hypertension in Southwest Nigeria. Journal of Advances in Medical and Pharmaceutical Sciences. 2019;11(2):1-11.
10. Fondjo LA, Boamah VE, Fierti A, Gyesi D, Owiredu EW. Knowledge of preeclampsia and its associated factors among pregnant women: A possible link to reduce related adverse outcomes. BMC Pregnancy Childbirth. 2019;19:456.
11. Mekie M, Addisu D, Bezie M, Melkie A, Getaneh D, Bayih WA, *et al*. Knowledge and attitude of pregnant women towards preeclampsia and its associated factors in South Gondar Zone, Northwest Ethiopia: a multi-center facility-based cross-sectional study. BMC pregnancy and childbirth. 2021, 21(1),
12. Jena P, Mohapatra S. A retrospective study of socio-demographic factors in pregnancy-induced hypertension in a tertiary care hospital in eastern India; c2019.
13. Jim B, Sharma S, Kebede T, Acharya A. Hypertension in pregnancy: a comprehensive update. Cardiology in review. 2020;18(4):178-189.
14. Sharma N, Kumar N, Singh S, Malik JS, Jangra A. Status and determinants of birth preparedness and complication readiness in a rural block of Haryana. Journal of family medicine and primary care. 2019;8(2):482-486
15. Verma MK, Kapoor P, Yadav R, Manohar RK Risk Factor Assessment for Preeclampsia: A Case Control Study. International Journal of Medicine and Public Health. 2020, 7(3).

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