

Evaluation of Pregnancy Outcomes among Women with Gestational Hypertension and its Relation to the provided health Care

Research Article

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Keywords

Gestational Hypertension, Definition, Provided Care, Pregnancy Outcome, Preeclampsia, Eclampsia

Abstract

Background: Gestational Hypertension complicates up to approximately 10-15% of all the pregnancies and it is linked to high risk of reverse fetal, neonatal, and maternal consequences. **Aim:** Evaluate the pregnancy outcomes among women with gestational hypertension and its relation to provided care. **Study Design:** Quantitative descriptive design **Setting:** King Abdulaziz University Hospital and Maternity and Children Hospital **Sampling:** The sample was a purposeful sample that includes the gestational hypertension, preeclampsia and eclampsia women, who fulfill the inclusion criteria and admitted to the mentioned setting during data collection time and agree to participate. **Study period:** From September 2013 till April 2014. **Tools:** 1- Assessment sheet 2- The pregnancy outcomes checklist. **Results:** The maternal outcome in this study recorded no deaths, however; among the participating women 38.3% had serious complications. (58.3%) of women delivered by caesarian section, (35%) had preterm deliveries, (7.7%) had cardiovascular complications, (5%) had HELLP syndrome and (3.3%) had PPH. On the other hand, 66.7% of the neonates were complicated. 35% of the babies had premature birth, while one baby IUFD and one neonatal death **Conclusion:** Both fetal and maternal complications were highest when nursing care was not achieved. However, study findings indicates that the provided care to the gestational hypertensive women was not totally in line with international guidelines of gestational hypertension management. **Recommendation:** Study clearly indicates the necessity to organize continuing nursing education and training workshop for all the nurses and innovate a clear protocol in dealing with gestational hypertension woman.

Introduction:

Gestational hypertension is considered the most common medical problem during pregnancies (1) and constitutes one of the complications which affect 6-8% of pregnancies (2) On the other hand, preeclampsia and eclampsia affect approximately 10% of pregnant women, causing significant maternal and fetal morbidity and contributing to 15% of maternal mortality (3)

Gestational hypertension and pre-eclampsia is associated with preterm delivery, intra uterine growth retardation and perinatal death. Severe pre-eclampsia has the potential for progression to eclampsia, placental abruption, severe hemorrhage, multi-organ failure (4). It also leads to caesarian delivery, thrombocytopenia, cerebral edema, liver insufficiency, subcapsular liver hematoma, renal failure, and disseminated intravascular coagulation (DIC) (5)(6).

Most maternal deaths and complications are due to lack of resources (such as health care, education and finances), deficiencies in antenatal care, ineffective prevention strategies, inappropriate diagnosis and management of patients with preeclampsia or eclampsia. However, pregnancies affected by hypertensive disorders need cautious monitoring due to the higher risk of complications (7). Most of these complications could be reduced by early detection and proper management (8) (9).

Correspondingly, nurses have an important role in the prevention of gestational hypertension complications, and collaboration in the early detection and appropriate management of these disorders to minimize the adverse effects to both mother and infant. As additionally, management of preeclampsia and eclampsia requires knowledgeable and highly skillful nurses for assessing the women's needs and problems, and providing appropriate nursing care to save their lives (9).

Significance of study:

Gestational hypertension is one of the common conditions of unknown etiology which increases the maternal and fetal morbidity and mortality (10) During the search for articles about Gestational Hypertension, the researcher noticed that there were few Saudi based studies, which also made the researcher highly motivated and more interested to conduct this research. So, the researcher's goal was to utilize the study's findings to develop the overall care of pregnant hypertensive women.

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Material and methods

Research design / setting: A quantitative descriptive study was conducted at two main hospitals in Jeddah city, Saudi Arabia. The first hospital is the Maternity and Children's Hospital (MCH) Al-Mousaa'dya branch, the major center in obstetrics and gynecology specialty in the western region of the country under the Ministry of Health, The bed capacity of the hospital was 254 (11). The second one is King Abdul-Aziz University Hospital (KAUH), a Ministry of Education facility which is a major teaching hospital in Jeddah allocated in the southern region of Jeddah. The bed capacity of the hospital was 1002 (12).

Research instrument: The instruments that used in the current study are 1-Assessment sheet 2- The pregnancy outcome checklist. The first tool in this study aimed to assess the women's demographics, clinical data and the healthcare provided. It consists of two parts: **Part A.** Demographic and clinical data assessment sheet (researcher administered questionnaire). It was developed by the researcher based on review of relevant, current and updated literature. **Part B.** The health care provided inventory checklist. This checklist was adapted from the United States Agency for International Development and the Maternal and Child Health Integrated Program (13). It is an American assessment checklist, published and used with gestational hypertensive women.

Sampling: A purposive sampling approach was used to recruit women in current study. The sampling criteria included women with gestational hypertension, (mild - moderate - severe preeclampsia and eclampsia), who were admitted in previous mentioned setting. They were 20 to 45 years old, who started their pregnancy with normal blood and did not have arterial blood pressure above 120/80 mmHg during data collection. All women had regular visits or at least four visits during pregnancy, single fetus, gestational age 34 weeks or more & without any other chronic medical disease or obstetrical complications during their current pregnancy.

Data collection process

The data collection process has been taken through 2 phases: Phase 1. Approaching women & Phase 2. Follow up

Approaching women phase: Firstly, Women were approached in the natal ward four times per week from both hospitals 2. Researcher used the admission book to select cases that fulfilled the inclusion criteria 3. The cases were assigned to one of the gestational hypertension classified depending on women's clinical data (BP reading, protein level and edema scale) 4. Researcher completed the assessment form by interviewing and asking the women which took approximately 20 to 30 minutes. Subsequently, the researcher documented any type of care provided to the women during hospitalization and then completed part 2 of the assessment form by reviewing the medical record. The Provided care findings were classified into **achieved, partially achieved or not achieved.**

Follow up phase: The researcher followed up mother and baby's condition after delivery either by phone call or checking the post-natal list in the obstetric unit to complete the pregnancy outcome checklist

Statistical analysis:

The Statistical Package for Social Sciences (SPSS) software version 22.0 was used for data entry and analysis. Descriptive statistics and tests of significance for testing the association of two variables difference in the study

Ethical consideration

Official permission was obtained from the Ethical Committee of the Nursing Faculty at KAU. Next permission was obtained from both hospitals' committees to initiate data collection with full respect for the privacy of participant's.

Result:

A total of 60 women were included in the study with 30 of them classified as gestational hypertension and mild to moderate preeclampsia, 26 with severe preeclampsia and 4 with eclampsia. **Table 1:** Shows that the age of almost half of participants (46.7%) was less than 30 years. Their mean +SD was 32+9.7 years. About half of participants (51.7%) had basic education, 38.3% had university education, while 10% were illiterates. More than two thirds of participants were housewives (68.3%), 10% were students and 21.7% were employed.

Table 2 Shows that 35% of participants were primigravida, 36.7% had 2-5 pregnancies, while 28.3% had more than 5 pregnancies. More than one third of participants (38.3%) were nulliparous, 35% had 1-3 deliveries, while 26.7% had 4 or more previous deliveries. One fifth of participants (20%) had one previous abortion, while 15% had 2 or more abortions.

Table 3 Shows that half of participant women with gestational hypertension had mild to moderate pre-eclampsia (50%), 43.3% had severe pre-eclampsia, while 6.7% had eclampsia, Half of participants had +1 edema (50%), 28.3% had +2 edema, 16.7% had +3 edema, while 5% had +4 edema.

1. Systolic blood pressure: 140-160 mmHg; diastolic blood pressure: 90-110 mmHg
2. Diastolic blood pressure: 110 mm Hg or more and proteinuria 3+ or more
3. Pregnant woman became unconscious or had convulsions, diastolic BP 110 mmHg or more, proteinuria 2+ or more

Table 4 shows that about one third of participants (36.7%) underwent spontaneous normal vaginal delivery, 58.3% had Caesarian section, while 5% had instrumental delivery. About one third of participants (35%) had preterm deliveries, while 5% had post-term deliveries.

Figure 1 shows that maternal outcomes (7.7%, 7.7%, 5%, 3.3%, 3.3% & 1.7%) had seizures, cardiovascular complications, HELLP syndrome, abruption placentae, postpartum hemorrhage and renal complications respectively. But fetal outcomes shows that ten babies (16.7%) were small for their gestational age, 35% had premature birth, 5% had respiratory distress syndrome, 3.3% had metabolic acidosis, and 3.3% had intrauterine growth retardation, while one woman had IUFD (1.7%) and one had neonatal death.

1. Assessment of complete history was not performed by the nurse but by the physician

Table 1. Distribution of pregnant women with gestational hypertension in relation to their demographic characteristics (n=60)

Demographic characteristics	Studied sample	
	No	%
Age (in years)		
· <30	28	46.7
· 30-35	22	36.7
· >35	10	16.7
Mean +SD	32.6+9.7 years	
Educational level		
· Illiterate	6	10.0
· Basic education	31	51.7
· University	23	38.3
Occupation		
· Housewife	41	68.3
· Student	6	10.0
· Employee	13	21.7

Table 2. Frequency distribution of pregnant women with gestational hypertension in relation to their obstetric history (N=60)

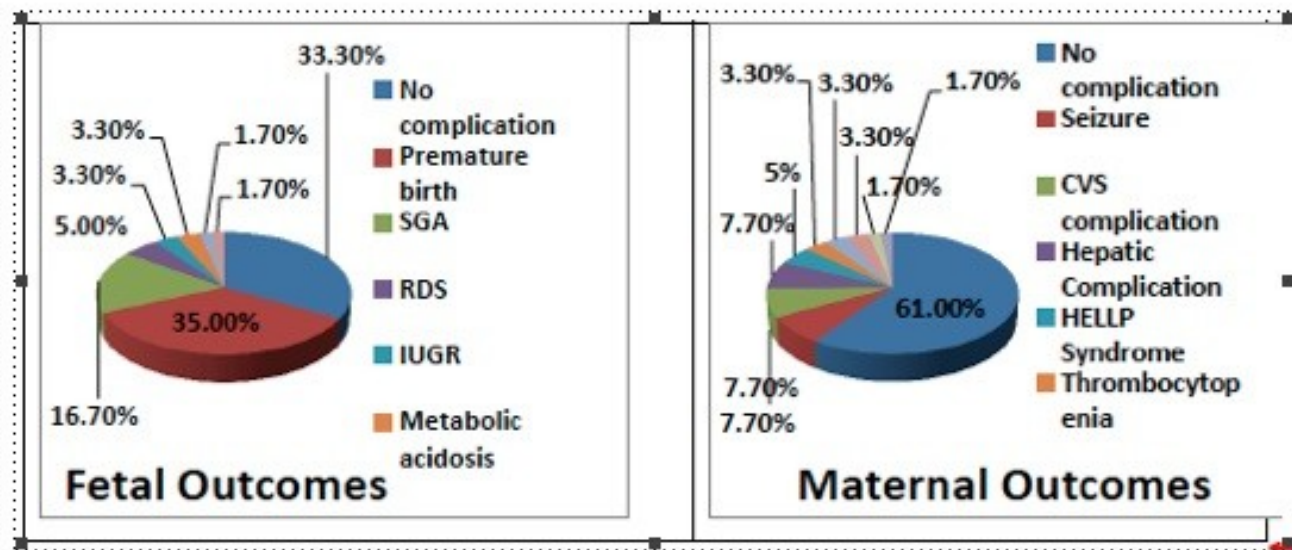
Obstetric history	Studied sample		
	No.	%	
Gravidity:			
· Primigravida (a)			21 35.0
· 2-5			22 36.7
· ≥5			17 28.3
Mean +SD			3.75 + 3.1975
Min, max			1, 18
Parity:			
· 0			23 38.3
· 1-3			21 35.0
· ≥4			16 26.7
Mean +SD			3.594 + 2.242
Min, max			1, 11
No. of abortions:			
· 0			39 65.0
· 1			12 20.0
· >2			9 15.0
Mean +SD			1.571 +0.926
Min, max			1, 5

Table 3. Distribution of pregnant women with gestational hypertension in relation to clinical findings (n=60)

Clinical findings	Sample studied	
	No.	%
Category of gestational hypertension		
· Mild to moderate pre-eclampsia (1)	30	50.0
· Severe pre-eclampsia (2)	26	43.3
· Eclampsia (3)	4	6.7
Grades of Edema		
· <2 mm (+1 edema)	30	50.0
· 2-4 mm (+2 edema)	17	28.3
· 4-6 mm (+3 edema)	10	16.7
· 6-8 mm (+4 edema)	3	5.0

Table 4. Frequency distribution of pregnant women with gestational hypertension in relation to pregnancy outcomes (n=60)

Pregnancy Outcomes	Studied sample	
	No.	%
Mode of delivery		
- Spontaneous normal vaginal delivery	22	36.7
- Cesarean delivery	35	58.3
- Instrumental delivery	3	5.0
Timing of delivery		
- Pre-term (< 37 weeks)	21	35.0
- Full term (37- 41 weeks)	36	60.0
- Post-term (>41 weeks)	3	5.0

**Figure 1.** Frequency distribution of pregnant women with gestational hypertension in relation to maternal & fetal outcomes (n=60)

2. Deep tendon reflexes according to condition was not performed by the nurse, but by the physician

Table 5: Shows that the least completely achieved nursing care activities regarding initial assessment of women with mild to moderate preeclampsia were: daily weighing of the patient (0%); and to position the client on her left side for 20 minutes, then recheck BP again with her sitting up (26.7%). On the other hand, the best achieved nursing care activities were checking a urine sample for protein, monitoring fetal wellbeing, promoting rest and relaxation and accurately administering medications (93.3% for all). Moreover the least achieved nursing care activities regarding management of gestational hypertension and health education for women with mild to moderate preeclampsia was: encouraging a balanced diet (13.3%). On the other hand, the best achieved nursing care was documenting all findings on the woman's record (96.7%).

1. Assessment by taking complete history was not performed by the nurse but by the physician
2. Deep tendon reflexes was not performed by the nurse but by the physician or nurses if there were clear order
3. Assess pulmonary edema by auscultating the lung bases for rales done by physician

- * Assessment of women's educational needs and provision of health education was performed by patient educator.

Table 6: shows that the least achieved provided care regarding initial assessment of women with severe preeclampsia was daily weighing of the patient (3.8%). On the other hand, the fully achieved provided care were: Monitoring fetal wellbeing (fetal heart sounds and uterine contraction by CTG & non-stress test); Fetal movement counting- keeping track of fetal of kicks and movements; promoting rest and relaxation; administering medications as prescribed and administration of magnesium sulfate (100% for all). Also, it shows that the least achieved provided care regarding management of gestational hypertension and health education for women with severe preeclampsia was: identifying problems/needs according to nursing process (42.3%). On the other hand, the best achieved provided care was encouraging women to take a balanced diet (92.3%).

Figure (2) Shows that provided health care was achieved for less than one third of participant women with gestational hypertension (30%), while provided care was partially achieved for 32% of participants. However, provided health care was not achieved in 38% for cases.

1. Statistically significant ($p < 0.05$)

Table 5. Frequency distribution of pregnant women with gestational hypertension or mild to moderate preeclampsia in relation to the provided health care (n =30)

	Achieved	Partially	Not
The provided health care		achieved	Achieved
	%	%	%
The general assessment	96.7	3.3	0.0
Take a complete history (1)			
Perform a complete physical assessment & abdominal examination	96.7	3.3	0.0
Continuous monitoring the fetal heart sound and uterine contractions	93.3	6.7	0.0
Position the client , then recheck BP again	26.7	30.0	43.3
Count fetal movements and keep track of fetal kicks and movements	90.0	6.7	3.3
Weigh the woman daily	0.0	83.3	16.7
The specific care	90.0	6.7	3.3
Check the vital signs (T PR) and the BP q 4 hour			
Assess deep tendon reflex every 4 hour (2)	46.7	33.3	26.7
Assess the intake and output strictly	90.0	10.0	0.0
Check the urine sample for protein	93.3	6.7	0.0
Minimize external stimuli	83.3	16.7	0.0
Promote rest and relaxation	93.3	6.7	0.0
Administer fluid and electrolyte	100	0.0	0.0
Administer the prescribed medications	93.3	6.7	0.0
Document all findings	96.7	3.3	0.0
Identify women's problems/needs according to nursing process	60.0	20.0	20.0
Assess women's educational needs and provide health education according to the condition(1)	73.3	16.7	10.0
Encourage the client to take well balanced diet with moderate to high protein and low to moderate sodium (1)	13.3	23.3	63.3
Educate the client about fetal movement counting	90.0	10.0	0.0

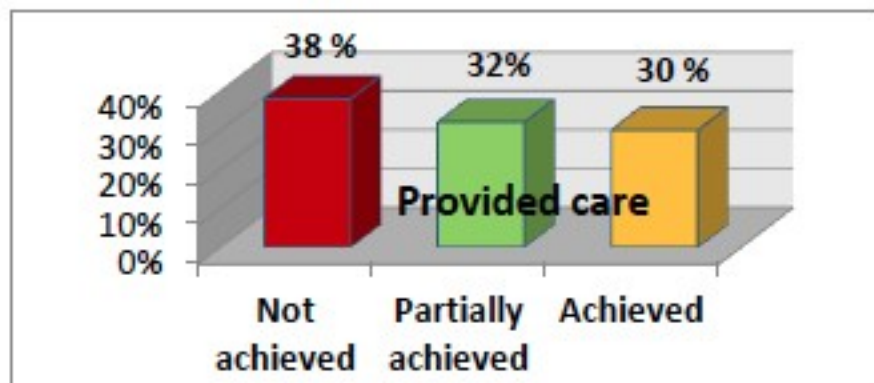
**Figure 2.** The achieved provided health care to participant women with gestational hypertension

Table 6. Frequency distribution of pregnant women with severe preeclampsia in relation to provided health care (n=26)

The provided health care	Achieved	Partially	Not
	%	achieved %	Achieved %
The general assessment			
Take a complete history(1)	84.6	7.7	7.7
Perform a complete physical assessment and abdominal examination	84.6	7.7	7.7
Continuous monitoring the fetal heart sound and uterine contractions	100	0.0	0.0
Count fetal movements and keep track of fetal kicks and movement	100	0.0	0.0
Position the client, then recheck BP again	30.8	0.0	69.2
Weigh the woman daily	3.8	42.3	53.8
The specific care	23.1	15.4	61.5
Check the vital signs and the BP q 1 hour			
Assess deep tendon reflex hourly(2)	65.4	30.8	3.8
Assess (face , upper extremities and lower extremities) edema	80.8	3.8	15.6
Assess pulmonary edema by auscultate the lung bases for rales (3)	100	0.0	0.0
Insert Indwelling urinary catheter & check the urine sample for protein	96.2	0.0	3.8
Assess the intake and output strictly	96.2	0.0	3.8
Minimize external stimuli	65.4	30.8	3.8
Promote rest and relaxation	100	0.0	0.0
Administer fluid and electrolyte	100	0.0	0.0
Administer the medication as prescribed	100	0.0	0.0
Document all findings on the woman's record	80.8	3.8	15.4
Identify women's problems/needs according to nursing process	42.3	15.4	42.3
Assess educational needs and provide health education according to women's condition	92.3	0.0	7.7
Encourage the client to take balanced diet with moderate to high protein and low to moderate sodium	50.0	38.5	11.5
Educate the client about fetal movement counting	80.8	3.8	15.4

Relationship between pregnancy outcome (maternal and fetal) of women with gestational hypertension and the provided health care (n=60)

Table 7. health c

vided

Pregnancy Outcome (n=23)	The Provided health care				Achieved		Value
	Not achieved		Partially				
	No.	%	No.	%	No.	%	
Fetal outcome							
· Complicated	19	82.6	14	73.7	7	38.9	0.010*
· Non-complicated	4	17.4	5	26.3	11	61.1	
Maternal outcome:							
· Complicated	13	56.5	8	42.1	2	11.1	0.012*
· Non-complicated	10	43.5	11	57.9	16	88.9	

Table 7 shows that fetal complications were highest when the provided health care for women with gestational hypertension was not achieved (82.6%), while when the provided health care was achieved; the fetal complications were less (38.9%).

Differences in proportions of fetal complications according to the achievement of the provided health care were statistically significant ($p=0.010$). Similarly, maternal complications were highest when the provided health care for women with gestational hypertension was not achieved (56.5%), while when the provided health care was achieved; the maternal complicated cases were at a minimum (11.1%).

Differences in proportions of maternal complications according to the achievement of the provided health care were statistically significant ($p=0.012$).

Discussion:

The result of the present study showed that half of the total study sample were less than thirty years old and the mean age was 32 years old, which was similar to Abalos et al.'s (2015) study. Also, more than one third of participants were primigravidas. Also, about half of them had a basic school education, while the remainders were illiterates. More than two thirds of participants were housewives (1). Some of these characteristics constitute recognized risk factors for pregnancy induced hypertension. The factors that increase

risk include primiparity, especially at a young age, and multiparity, especially at an older age (over 35 years) (14).

These findings concur with those reported by several researchers. Hafez & Sayed, (2014) reported that women's socioeconomic situation is a risk condition that contributes to a higher incidence of gestational hypertension, as its rates are much higher in poor and developing countries, where most pregnant women have an incomplete primary or secondary educational level (15). Also, most were housewives or had jobs as maids or clerks. Moreover, women with low educational levels usually have a higher risk of gestational hypertension (16).

In relation to pregnancy outcomes, it was observed that about one third of the women underwent spontaneous normal vaginal delivery; more than half of them had caesarian sections, while 5% had instrumental deliveries. Women with hypertension during pregnancy could be at risk of life threatening outcomes and in such cases a caesarean section should be performed to protect both baby and mother (1) this could be the main cause of increased number of caesarean sections among the women in the current study. About one third of participants had preterm deliveries, while 5% had post-term deliveries. Notably, the maternal outcome in this study recorded no maternal deaths; however, among the participating women 38.3% had serious complications such as hepatic complications, seizures, postpartum hemorrhage, HELLP syndrome, thrombocytopenia, DIC and renal complications. Additionally the maternal complications of preeclampsia include death, severe morbidity (such as pulmonary edema, renal failure, coagulopathy, cardiac failure, liver failure, and stroke), HELLP syndrome, placental abruption, and caesarean section (18) (19) (20).

On the other hand, the results showed that 66.7% of the neonates in the study were complicated. 35% of the babies had premature birth, 16.7% were small for gestational age, 5 % had respiratory distress syndrome, 3.3% had metabolic acidosis, and 3.3% had intrauterine growth retardation; one baby was intra uterine fetal death (IUFD) and there was one neonatal death after neonatal intensive care unit (NICU) admission. Various studies were fully supported with the neonatal complications in the current study, including mortality, intrauterine growth restriction, prematurity, and severe morbidity (such as intra-ventricular hemorrhage, severe respiratory distress syndrome, or asphyxia) (5) (19). The high rate of premature birth has been reported by Sajith, M., Nimbargi, V., Modi, A., & Sumariya, R. (2014), who explained that severe preeclampsia is characterized by progressive deterioration in both maternal and fetal conditions and that the highest rate was of prematurity which is similar to the current study (20).

Moreover, the absence of mortality rate in the present study is at par with study of Abalos et al., (2015)(1). In contrast, the mortality of fetus' and neonates in this study were present which is at par with the study of Kattah and Garovic (2013)(2)

This study revealed that adequate care was provided for less than one third of the women with gestational hypertension (30%), while it was partially provided for 32% of the women; however, proper care was not achieved in 38% of cases. It has been noted that several nursing care activities

were either not achieved or not fully achieved for participants with mild to moderate or severe pre-eclampsia.

Regarding women with mild to moderate preeclampsia, the least completely achieved nursing care activities in relation to initial assessment were daily weighing of the patient and to position the client on her left side for 20 minutes, then to recheck the blood pressure again with her sitting up. The most achieved nursing care activities were checking urine for protein, monitoring fetal well being, promoting rest and relaxation and accurately administering medications.

The nurses should monitor all women with gestational hypertension (21). The goal of monitoring women with mild gestational hypertension is to observe, and detect early, the progression of the condition to severe preeclampsia. In patients with mild preeclampsia, the goal is early detection of severe preeclampsia, while for those with severe preeclampsia; the goal is to observe for the development of organ dysfunction. Therefore, nurses should assess all such cases for symptoms of organ dysfunction, e.g., severe headaches, visual changes, altered mental status, right upper quadrant or epigastric pain, nausea or vomiting, shortness of breath, or decreased urine output. In relation to women with severe preeclampsia, the least achieved nursing care activity regarding initial assessment was daily weighing of the woman. The fully achieved nursing care activities were: monitoring fetal wellbeing (fetal heart sounds and uterine contraction by CTG & non-stress test); fetal movement counting- keeping track of fetal kicks and movements; promoting rest and relaxation; administering medications as prescribed and of magnesium sulfate.

Maembe,(2012) stated that, as the cause of pre-eclampsia is unclear, nursing management is vital. A nursing care plan for women with pregnancy induced hypertension involves monitoring vital signs, weight, urine output and level of consciousness, assessing deep tendon reflexes and symptoms of headache or epigastric pain, as well as providing treatment as prescribed. The nursing care plan involves allowing the patient complete bed rest, promoting rest and relaxation, and assessing her emotional and psychological needs. Complete or partial bed rest for the duration of pregnancy is often recommended (22).

On the other hand, results of this study revealed that almost all activities for the initial nursing assessment of eclamptic women, management of convulsion attacks, and identification of problems/needs were performed. The researcher believes that most of the care for eclampsia cases was performed thoroughly because the nurses in the emergency department were providing these essential aspects of care as urgent life saving measures.

Results of this study clearly indicated that both fetal and maternal complications were highest when nursing care was not adequate, while when the nursing care was delivered appropriately, the number of fetal and maternal complications were at a minimum. However, important findings indicated that the care provided to the gestational hypertensive women was not totally in line with international or regional guidelines of management of gestational hypertension.

In accordance with findings of the present study, the crucial role played by nurses for management of women

with pre-eclampsia /eclampsia has been emphasized by Bell, (2011) who stated that, effective preventive measures and screening tools are mostly lacking in cases of gestational hypertension and that routine nursing assessments of the signs/symptoms indicative of preeclampsia-eclampsia remains critical to detection, monitoring, and effective management. Patient education and the provision of a supportive environment are essential factors in nursing management of these cases (23). Daniels (2011) argued that many researchers have debated the causes of adverse birth outcomes (low birth weight, preterm births, and infant mortality) (24).

The most recent recommendations are that pregnant women should obtain antenatal care in the first trimester and throughout the duration of their pregnancy, especially those at greater risk for these adverse birth outcomes (25). Moreover, Prost et al., (2013) found that antenatal care visits during the third trimester were significantly lower among preeclampsia/eclampsia cases than among controls (26).

This study's results revealed that nurses do not practice some aspects of the American Protocol for Gestational Hypertension Management. Firstly, to obtain the history, the nurse should follow the history assessment section on the nursing admission sheet and the physician should obtain a complete history. Secondly, nurses are not assessing the deep tendon reflexes and pulmonary edema unless there is a clear doctors order in one of the study's hospitals, and they are not doing at all in the second hospital despite these two items being critical signs of a gestational hypertensive woman's deterioration. It was performed by the physician but either was not performed completely or regularly by the nurse and depended upon the physician's assessment. Thirdly, the women's weight was not measured daily; the nurses took the weight during admission once or depended on the weight at the last visit to the clinic. Fourthly, identifying the problems and needs of the women are not performed in one of the study's hospitals and the nurses in the other hospital write a nursing care plan and prepared an inpatient file but not all the planned care is implemented effectively, which is crucial nursing action for discovery, management and prevention in high risk cases. Fifthly, not all nurses provide education to patients. This was performed either by physicians or a patient educator, but from a nursing perspective these points are considered part of a nurses' role as they are present with patients 24 hours per day while the educators are not. According to current study there was an obvious omission in this aspect of nursing care.

Conclusion & recommendation:

The present study concluded that both fetal and maternal complications were highest when nursing care was not achieved, while when the nursing care was achieved; the fetal and maternal complicated cases were at a minimum. However, the study findings indicated that the provided care to the gestational hypertensive women was not totally in line with international or regional guidelines of gestational hypertension management. The research question of this study was answered by the results that proved the positive relation between the pregnancy outcome and the nursing care provided among gestational hypertensive women. The results of this study recommended that develop an ideal protocol for nursing in line with international guidelines for cases of

gestational hypertension to standardize the care provided in outpatient and inpatient departments and delivery unit and the application of nursing practice based on evidence. Also Study clearly indicates the necessity to organize continuing nursing education and training workshop for all the nurses and innovate a clear protocol in dealing with gestational hypertension woman.

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