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Knowledge and Practices of Health Workers in relation to Preeclampsia at Ishaka Adventist Hospital in Western Uganda.

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ABSTRACT

In Uganda Pre-eclampsia remains a significant public health threat among the five obstetric emergences, which includes postpartum hemorrhage, obstructed labor, unsafe abortion, puerperal sepsis. The study was a cross sectional descriptive that was conducted among health workers in Ishaka Adventist hospital on knowledge and practices in relation to preeclampsia at IAH. It was found out that 17(47%) had very good knowledge 10(27%) had good knowledge and 9(26%) had poor knowledge. It showed that 18 (35%) had very good knowledge10 (19%) showed good knowledge and 16(44%) showed poor knowledge. The study showed that 25 (69%) had very good knowledge 5 (15%) showed good knowledge and 6(17%) showed poor knowledge. Most of the study sample knew about the following; the risk factors for preeclampsia, Subjective signs of preeclampsia, drugs of choice used in managing hypertension in severe preeclampsia, drug of choice used in managing convulsions in severe preeclampsia/ eclampsia, effects of preeclampsia on fetus.

Keywords: knowledge, practices, health workers, preeclampsia, Uganda

INTRODUCTION

Preeclampsia is a life-threatening hypertensive disorder of pregnancy that normally starts after 20 weeks of gestation [1-10]. With increased blood pressure (Bp≥140/90mmHg) and proteinuria (urinary albumin ≥300mg/24hrs). It is one of the leading causes of maternal mortality and morbidity amongst pregnant women in the world. Maternal mortality & morbidity are significant Public health problem in developing countries [11-20]. According to the World Health Organization [21], postpartum hemorrhage is the leading cause of maternal deaths in developing countries, accounting for 27% of deaths, followed by hypertensive disorders of pregnancy(primarily pre-eclampsia and eclampsia) and sepsis, which each account for 12% of deaths, and obstructed labor (6% of deaths) [22-29]. About 10 million women develop preeclampsia every year with the estimated maternal mortality of about 630,000 women each year and about 500,000 fetal deaths. WHO reported that, globally an estimated number of 289,000 women died during and following pregnancy and childbirth related problem in 2013 alone [30]. The mortality is due to limited availability of services, poor access to care, and lack of knowledge by community members and health workers (HWs) [31- 46]. In Sub-Saharan Africa more than 270,000 women die from maternal deaths, worldwide approximately 76,000 women and 500,000 babies die yearly due to preeclampsia [47]. In Sub-Saharan Africa, maternal mortality is abnormally very high with >400 deaths/100,000 births compared to <10/100,000 in Europeans [48].

In Nigeria about 55,000 women die due to preeclampsia per year and this account for around 10.0% of the world total maternal mortality rate [49]. In Nigeria the burden of maternal morbidity and mortality is still on the increase with the country contributing about 15% to global maternal deaths at ratio of 554 per 100,000 live births to 630 per 100,000 live births [50]. In Sudan it accounts for 4.2% among the obstetric complications of pregnancy and about

18.1% of maternal death (Saria 2014). The mortality is high because not all health facilities are equipped with skilled professionals and technology to assess and address preeclampsia [51]. In Uganda Pre-eclampsia remains a significant public health threat among the five obstetric emergences, which includes postpartum hemorrhage, obstructed labor, unsafe abortion, puerperal sepsis. The incidence of preeclampsia/eclampsia in Uganda are very high, in a research done in Mulago national referral hospital it contributed 17.6% of maternal morbidity and 21.4% of maternal deaths among women referred to the emergency obstetric unit [52]. No much research has been on knowledge and practices of HWs in relation to preeclampsia in AIH and Uganda at large.

METHODOLOGY

Study Design

The study was a cross sectional descriptive that was conducted among health workers in Ishaka Adventist hospital on knowledge and practices in relation to preeclampsia at IAH.

Study Area

The study was conducted at Ishaka Adventist hospital which is located in Ishaka municipality, bushenyi district.

Study Population

Health personnel (Clinicians, nurses, midwives and doctors) working at antenatal, labor ward, maternity theatre outpatient department and postnatal clinics in Ishaka Adventist Hospital.

Sampling Techniques

The study employed random sampling techniques.

The sample Size Determination

The sample size was determined by using Krejcie and Morgan table formula which is shown in the appendix II. My sample size was 36 HWs

Inclusion Criteria

Doctors, Clinical officers, nurses, midwives working at antenatal clinic, post-natal, maternity ward, maternity theatre and other clinics or wards in IAH.

Exclusion Criteria

Students, HWs working in other departments; like eye clinic, dental clinic, orthopedics among others.

Data Analysis

Data analysis was done using statistical package SPSS 16.

Ethical Considerations

Ethical approval was sought from Kampala International university school of Allied health sciences. The health workers were given right to decide/consent for the test by signing on the consent form. The HWs were given right to withdraw at any time of the interview without any penalty. They were also given freedom to ask questions. HWs were also assured of confidentiality (phone numbers and signatures were used instead of names).

RESULTS

Table (1) percentage distribution knowledge of study sample about the definition of preeclampsia.

Definition of preeclampsia	Frequency	Percentage
Very good	17	47%
Good	10	27%
Poor	9	26%
Total	36	100.0%

Table (1) illustrates the knowledge of the study sample about the definition of preeclampsia it was found out that 17(47%) had very good knowledge 10(27%) had good knowledge and 9(26%) had poor knowledge.

Table (2) knowledge of study sample about classification of preeclampsia

Classification of preeclampsia	Frequency	Percentage
Very good	11	31%
Good	9	25%
Poor	16	44%
Total	36	100.0%

Table (2) illustrates the knowledge of study sample about classification of preeclampsia it showed that 18 (35%) had very good knowledge10 (19%) showed good knowledge and 16(44%) showed poor knowledge.

Table (3) knowledge of study sample about causes of preeclampsia

Causes of preeclampsia	Frequency	Percentage
Very good	28	78%
Good	3	8%
Poor	5	14%
Total	36	100.0%

Table (3) illustrates the knowledge of study sample about causes of preeclampsia it was found that 28 (78%) had very good knowledge 3 (8%) had good knowledge 5(14%) had poor knowledge.

Table(4) knowledge of study sample about risk factors for preeclampsia

Risk factors	Frequency	Percentage
Very good	29	80%
Good	5	14%
Poor	2	6%
Total	**36**	**100.0%**

Table 4 illustrates the knowledge of study sample about risk factors for preeclampsia it was found that 29 (80%) had very good 5(14%) had good and 2(6%) had poor knowledge.

Table 5: knowledge of study sample about serious (subjective) signs of severe preeclampsia.

Serious signs of preeclampsia	Frequency	Percentage
Very good	20	56%
Good	2	3%
Poor	14	39%
Total	36	100.0%

Table 5 illustrates the knowledge of study sample about serious (subjective) signs of severe preeclampsia it was found that 20(56%) had very good knowledge 2 (5%) had good knowledge 14(39%) had poor knowledge.

Table 6: knowledge of study sample about mild to severe signs indicate progress of preeclampsia

Progress from mild to severe preeclampsia	Frequency	Percentage
Very good	13	36%
Good	6	17%
Poor	17	47%
Total	36	100.0%

Table (6) illustrates knowledge of study sample about mild to severe signs indicate progress of preeclampsia 13 (36%) showed very good knowledge 6 (17%) showed good knowledge and 17(47%) showed poor knowledge.

Table 7: knowledge of study sample about bed rest for preeclamptic mother

Bed rest for preeclamptic mother	Frequency	Percentage
Very good	26	72%
Good	2	6%
Poor	8	22%
Total	36	100.0%

Table 7 illustrates knowledge of study sample about bed rest for preeclamptic mother it showed that 26 (72%) had very good knowledge 2(6%) showed good knowledge and 8(22%) had poor knowledge on preeclampsia.

Table 8: knowledge of study sample about signs of HEELP syndrome.

Signs of HEELP syndrome	Frequency	Percentage
Very good	14	39%
Good	5	14%
Poor	17	49%

Total	36	100.0%

Table 8 illustrates the knowledge of the study sample about signs of HEELP syndrome it was found that 14 (39%) showed very good knowledge 5 (14%) showed good knowledge and 17 (49%) showed poor knowledge.

Table 9: knowledge of study sample about the effects of preeclampsia on the mother

Effects of preeclampsia on the mother	Frequency	Percentage
Very good	21	61%
Good	7	19%
Poor	8	22%
Total	36	100.0%

Table 9 illustrates knowledge of the study sample about the effects of preeclampsia on the mother it showed that 21 (61%) had very good knowledge 7 (19%) showed good knowledge and 8(22%) showed poor knowledge.

Table 10: knowledge of study sample about the effects of preeclampsia on the fetus

Effects of preeclampsia on the mother	Frequency	Percentage
Very good	25	69%
Good	5	15%
Poor	6	17%
Total	36	100.0%

Table (10) illustrates knowledge of the study sample about the effects of preeclampsia on the fetus it showed that 25 (69%) had very good knowledge 5 (15%) showed good knowledge and 6(17%) showed poor knowledge.

Table 11: practices of study sample about drug of choice in managing convulsions in severe preeclampsia/eclampsia

Drug of choice in convulsing mother	Frequency	Percentage
Very good	30	83%
Good	2	6%
Poor	4	11%
Total	36	100.0%

Table 11 illustrates practices of study sample about drug of choice in managing convulsions in severe preeclampsia/eclampsia 30 (83%) showed very good practices2 (6%) showed good practices 4 (11%) showed poor practices.

Table 12: practices of the study sample about dose of magnesium sulphate

Dose of MgSO4	Frequency	Percentage
Very good	16	48%
Good	0	0%
Poor	18	52%
Total	36	100.0%

Table 12 practices of the study sample about dose of magnesium sulphate about dose of magnesium sulphate it was found that 16 (48%) showed very good practices 18 (52%) showed poor practices.

Table 13: practices of the study sample on determining the sign of magnesium sulphate toxicity

Signs of magnesium toxicity	Frequency	Percentage
Very good	21	58%
Good	2	6%
Poor	17	46%
Total	36	100.0%

Table 13 illustrates practices of study sample on determining the sign of magnesium sulfate toxicity it was found 21 (58%) showed very good practices 2 (6%) had good practices 17 (46%) had poor practices.

Table 14: practices of the study sample about giving antidote for MgSO4 toxicity

Antidote for MgSO4 toxicity	Frequency	Percentage
Very good	31	86%
Good	2	6%
Poor	3	8%
Total	36	100.0%

Table 14 illustrates practices of study sample about giving antidote for MgSO4 toxicity it was found that 31(86%) showed very good practices 2(6%) showed good practices 3(8%) had poor practices.

Table 15: practices of the study sample about hypertensive drugs used in severe preeclampsia

Antihypertensive drugs used in sever preeclampsia	Frequency	Percentage
Very good	33	92%
Good	0	0.0%
Poor	3	8%
Total	36	100.0%

Table 15 illustrates practices of study sample a bout hypertensive drugs used in sever preeclampsia it was found out that 33(92%) showed very good practices 3 (8%) showed poor practices.

Table 16: practices of the study sample about indications for delivery of preeclamptic mother

Indications for delivery of preeclamptic mother	Frequency	Percentage
Very good	20	55%
Good	2	5%
Poor	14	40%
Total	**36**	**100.0%**

Table 16 illustrates practices of study sample a bout indications for delivery of preeclamptic mother it was found out that 20 (55%) showed very good practices 2 (5%) showed good practices 14(40%) had poor knowledge.

DISCUSSION

The study was a descriptive cross-sectional hospital based conducted to assess the knowledge and practices of health workers in relation to preeclampsia at Ishaka Adventist hospital in western Uganda.

This study showed that 9(26%) did not know the definition of pre-eclampsia. These study results are in agreement with study done in Eastern Cape which is showed that (27.7%) of the participants had incorrect answer [53].

The study showed that 29(80%) had very good knowledge 5(14%) had good knowledge and 2(6%) had poor knowledge on risk factors of preeclampsia as shown in table (4).These study results are in agreement with study done in Khartoum that found out that 45(90%) had very good knowledge and 3(6%) had good knowledge on risk factors of preeclampsia [54]. These findings also corresponds with the study conducted in Tanzania which also shown that (87%) knew the risk factors of preeclampsia [55].

The study also showed that 25(69%) had very good knowledge 5(15%) had good knowledge and 6(17%) had poor knowledge on effects of preeclampsia to the fetus as shown in table (10). These study results are in agreement with a study done by Maembe that showed that 34(68%) had very good knowledge 3(6%) good knowledge and 13(26%) had poor knowledge on effects of preeclampsia on the fetus this this is in agreement with my results

HELLP Syndrome is one of the complications of severe preeclampsia that occurs 10-20% increased maternal and fetal morbidity and mortality. The study found that more than half 18(49%) of study sample did not know the signs of HELLP syndrome that means there is a big deficit knowledge regarding in variable table (8).

Study revealed that (72%) of the study sample had very good knowledge on why we encourage rest to preeclamptic patient as shown in table (6) The result in this study corresponds with a study done in Eastern cape which is showed that (84.1%), of the participants had correct answer [53].

Although classifying preeclampsia is essential in its management 16 (44%) of the study sample had poor knowledge regarding classification of preeclampsia as showed in table (2) in addition 14(39%) also didn't know the signs of

severe preeclampsia as showed in table (5).This shows a deficit in knowledge in the two variables though 20(56%) had very good knowledge on serious subjective signs of severe preeclampsia.
The study found that 30(83%) showed very good practices on the best drug used in managing convulsions in severe preeclampsia/ eclampsia as shown in table (11)).These study results are in agreement with study conducted in Cairo that found out that 27(90%) knew indications for use of MgSO4 [56-61]. The study also showed that 31(86%) showed very good practices on antidote drug used in case of magnesium toxicity as showed in table (14)
The study also found that 33(92%) showed good practices on best antihypertensive drugs used in managing severe preeclampsia as showed in table (15).

However, in my study18 (52%) showed poor practices on the dose of magnesium sulphate17 (46%) had poor practices in detecting signs of magnesium toxicity as shown in tables (12) and (13) respectively. This shows some deficit of knowledge on the two variables and should be investigated about.

CONCLUSION

Most of the study sample knew about the following; the risk factors for preeclampsia, Subjective signs of preeclampsia, drugs of choice used in managing hypertension in severe preeclampsia, drug of choice used in managing convulsions in severe preeclampsia/ eclampsia, effects of preeclampsia on fetus.
Also, many of the study samples did not know the following; dose of magnesium sulphate, Signs of magnesium toxicity, HEELP syndrome signs, indications for delivery of preeclamptic mother, signs that indicate progress from mild to severe preeclampsia and classification of preeclampsia.

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