

Research Article

Knowledge, attitude, and practice of midwives towards prompt identification of pre-eclampsia in Lira regional referral hospital, Lira district: A descriptive cross-sectional study

Agnes Agwang^{1*}, Judith Drazidio², Rose Aciro³

¹Department of Health Sciences, School of Nursing and Midwifery, Clarke International University, Kampala, Uganda

²Department of Health Sciences, Institute of Public Health and Management, Clarke International University, Kampala, Uganda

³Department of Health Sciences, Uganda Friendship Hospital-Naguru, Kampala, Uganda

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ABSTRACT

Background: Pre-eclampsia is a pregnancy complication characterized by high blood pressure and multi-organ dysfunction in mothers. It is a leading contributor to maternal and perinatal mortality in low and middle-income countries. Prompt diagnosis of preeclampsia is necessary to ensure maternal and fetal well-being while delays in the diagnosis contribute to adverse maternal and fetal outcomes. This study assessed knowledge, attitude, and practices of midwives towards prompt identification of signs and symptoms of pre-eclampsia in Lira regional referral hospital Lira district.

Subjects and methods: This study employed a descriptive cross-sectional study design among midwives in Lira regional referral hospital. A simple random sampling technique was used to select 57 midwives. The dependent variable was prompt identification of signs and symptoms of preeclampsia while independent variables included knowledge, attitude, and practices. A quantitative questionnaire was used and data analyzed using frequency distribution with corresponding percentages.

Results: 57 respondents participated in this study, 91.2% were aware of prompt identification of signs and symptoms of preeclampsia. 98.2% knew that prompt identification included blood pressure taking and urine testing. 63.2% ever attended training on the identification of pre-eclampsia. 96.5% were aware of the effects of pre-eclampsia on the mother and body. 98.2% agreed that prompt identification reduced maternal and perinatal mortality and late identification posed adverse pregnancy outcomes. 68.4% always did proper screening of blood pressure and urine testing, only 47.4% always had a urine test kit in their unit at all times, 68.4% always had blood pressure machines available in all clinical areas. 33.3% always had urine testing for all pregnant women, and 73.7% always instructed pregnant women to collect clean urine for testing.

Conclusions: Knowledge and attitude of respondents was found high and positive towards prompt identification while practices were found low. The study recommended training; supply of equipment required for the identification of pre-eclampsia.

Keywords: Knowledge, Attitude, Practices, Pre-eclampsia, Prompt identification

*Corresponding author. Agnes Agwang, E-mail: aagwang@gmail.com

INTRODUCTION

Globally, hypertensive disorders in pregnancy (pre-eclampsia) is among the leading causes of maternal and fetal morbidity and mortality and it potentially causes a threat to the mother and the infant's health (Garovic VD, White WM, Vaughan L, 2020). The incidence of pre-eclampsia and maternal mortality had reduced significantly in the developed countries but this is not the case for developing countries where its incidence is still high (Abalos E, Cuesta C, Grosso AL, 2013). For example, the global incidence of pre-eclampsia in the Mediterranean region was 1.0% and 5.6% in Africa. In addition, hypertensive disorders cause long-term disability and death during pregnancy and postpartum and it accounts for about 14% of all maternal deaths globally (World Health Organization 2018).

In Uganda, the maternal mortality ratio stands at 336 deaths per 100,000 live births and about 15 pregnant women die every day due to direct causes such as hemorrhage and hypertensive disorders (Nabulo H, Ruzaaza G, Mugabi F, 2021). For example, a study conducted in southwestern Uganda revealed that 15% of maternal mortality was due to hypertensive disorders in pregnancy (Lugobe HM, Muhindo R, Kayondo M, 2020).

MATERIALS AND METHODS

Study design

This study employed a descriptive cross-sectional study design to assess the knowledge, attitude, and practices of midwives on prompt identification of pre-eclampsia among pregnant women attending antenatal care services in Lira regional referral hospital. We employed a quantitative data collection approach to obtain information on knowledge, attitude, and practices on prompt identification of pre-eclampsia.

Target population

The study targeted health care workers working in Lira regional referral hospital in northern Uganda. However, the population only included midwives working in maternity department and those who had consented to participate in the study.

Study site

The study was carried out in Lira Regional Referral hospital commonly known as Lira Hospital, which is situated 319 km north of Kampala, the capital city of Uganda, and it's one of the thirteen public regional referral hospitals in Uganda.

The hospital offers both general and specialized services such as obstetrics/gynecology, internal medicine, pediatrics, ophthalmology, surgery and orthopedics, mother and child clinic, community health, ENT, palliative care, mental health, and physiotherapy.

Sample technique

The study utilized a random sampling procedure for selecting the midwives, where all the midwives' names were written on pieces of paper, folded and the hospital administrators picked the names at random without replacements. Whoever (midwife) was available at the hospital in the department of Gynecology/Obstetrics at the time of data collection and had picked on the paper with a YES were interviewed.

Sample size determination

Taro Yamane formula was employed to determine the sample size for this study. According to the hospital record, 67 midwives work in Lira regional referral hospital. Submitting the known population in the formula states:

$$n = N / (1 + N(e)^2),$$

Where,

N=a total number of midwives in the hospital e=error or confidential level taken at 0.05 n is the required sample size. The population, N is 67 midwives based on figures obtained from the hospital administration. Using the formula, the sample population was calculated using Yamane's.

Formula:

$$n = N / (1 + N(0.05 \times 0.05)) \text{ gives } 57 \text{ respondents.}$$

Study variables

The dependent variable was prompt identification of signs and symptoms of pre-eclampsia.

Independent variables included knowledge on prompt identification of pre-eclampsia and this included awareness on prompt identification, sources of information, the meaning of prompt identification, Identification criteria, Importance of prompt identification as well as dangers of not decontaminating.

Attitudes towards prompt identification of pre-eclampsia included the relevance of blood pressure taking and urine testing of pregnant women in all visits, responsible persons and where it is either positive or negative ways of doing things.

Practice to prompt identification of pre-eclampsia included Routine Blood pressure taking in all visits, Urine testing in all visits, routine sensitization of all pregnant women to attend antenatal clinic as scheduled, and conducting routine blood pressure taking and urine testing in all visits.

RESULTS

Demographic characteristics of respondents

The distribution of the respondents according to the demographic characteristics presented revealed that 21 (36.8%) were working in the labor and postnatal ward, 24 (42.1%) worked in the maternal and child health unit and 9 (15.8%) worked in EMTCT clinic, while only 3 (5.3%) worked in the gynecology department. The study results showed majority 56 (98.2%) of the respondents were female as compared to 1 (1.8%) male.

The age distribution of the respondents indicated that 17 (29.8%) were less than 25 years and 17 (29.8%) were aged 25 to 30 years while 8 (14.0%) were aged 31 to 35 years.

The study finding revealed that half 30 (52.6%) of the respondents

were married, 26 (45.6%) were single and one respondent had separated. In addition, the study results showed that most 34 (59.6%) of the respondents had attained a certificate, 18 (31.6%) had a diploma and 5 (8.8%) had attained a degree.

Furthermore, the study results showed that 25 (43.9%) of the respondents were Catholics, 1 (36.8%) were Anglicans and 11 (19.3%) were Pentecostal. The duration of work of the respondents was assessed and the result indicated that 29 (50.9%) had worked for less than three years, 17 (29.8%) worked for 3 to 6 years while 11 (19.3%) worked for more than six years.

The distribution of the respondents according to cadre revealed that 17 (29.8%) were registered midwives and 32 (56.1%) were enrolled midwives and 4 (7.0%) had bachelor's degree in midwifery (Table 1).

Table 1. Demographic characteristics of the respondents.

Variables	Category	Frequency	Percentage
Department	Labor and postnatal	21	36.8
	MCH	24	42.1
	PMTCT	9	15.8
	Gynecology	3	5.3
Gender	Male	1	1.8
	Female	56	98.2
Age	<25 years	17	29.8
	25-30 years	17	29.8
	31-35 years	8	14.0
	36 years and above	15	26.3
Marital status	Single	26	45.6
	Married	30	52.6
	Separated	1	1.8
Level of education	Certificate	34	59.6
	Diploma	18	31.6
	Degree	5	8.8
Religious	Catholics	25	43.9
	Anglicans	21	36.8
	Pentecostal	11	19.3
Work duration	<3 years	29	50.9
	3-6 years	17	29.8
	>6 years	11	19.3
Cadre	Bachelors in Midwifery	4	7.0
	Registered midwife	17	29.8
	Comprehensive	4	7.0
	Enrolled midwife	32	56.1
	Total	57	100.0

Assessment of knowledge of health care workers on prompt identification of pre-eclampsia

This study assessed the knowledge of the respondents concerning

prompt identification of pre-eclampsia. The study results showed that the majority 52 (91.2%) of the respondents had ever heard about prompt identification of pre-eclampsia unlike 5 (8.8%) who were not aware.

The sources of information were mostly from the training school 37 (64.9%), while 10 (17.5%) heard from health facilities through continuous medical education and 5 (8.8%) heard over the radio.

In addition, the study found that the majority 56 (98.2%) of the respondents agreed that prompt identification of pre-eclampsia included blood pressure taking and urine testing in all ANC visits while only 1 (1.8%) did not know.

The study also established that greater than half 36 (63.2%) of the respondents had ever attended training on the identification of pre-eclampsia while 21 (36.8%) never had training. However, the majority 55 (96.5%) of the respondents were aware of the effects of pre-eclampsia on the mother and body while 2 (3.5%) of them were not aware. The effects of pre-eclampsia on the mother included placenta abruption 23 (40.4%), preterm labor 16 (28.1%), and maternal death 18 (31.6%) while the effects on the baby included fetal growth restrictions 11 (19.3%), low birth weight 14 (24.6%) and stillbirth 32 (56.1%) (Table 2).

Table 2. Knowledge on prompt identification of pre-eclampsia by respondents.

Variables	Category	Frequency	Percentage
Have you ever heard of prompt identification of pre-eclampsia			
	Yes	52	91.2
	No	5	8.8
Sources of information	Training school	37	64.9
	Radio	5	8.8
	Health facility through CME	10	17.5
	Not applicable	5	8.8
Prompt identification of pre-eclampsia include; BP taking and urine testing in all ANC visits			
	True	56	98.2
	Do not know	1	1.8
Have you ever had training on the identification of pre-eclampsia			
	Yes	36	63.2
	No	21	36.8
Aware of the effect of pre-eclampsia on mother and baby			
	Yes	55	96.5
	No	2	3.5
Effects on mother	Placental abruption	23	40.4
	Preterm labor	16	28.1
	Maternal death	18	31.6
Effects on baby	Fetal growth restriction	11	19.3
	Low birth weight	14	24.6
	Stillbirth	32	56.1
	Total	57	100.0
Source primary field data 2022			

Assessment of attitude of health care workers towards prompt identification of pre-eclampsia

This study examined the attitude of the respondents towards prompt identification of pre-eclampsia. The study results showed the majority 56 (98.2%) of the respondents who agreed that prompt identification of pre-eclampsia is an important measure to the reduction of maternal and perinatal mortality while one respondent disagreed. In addition, the study results showed that the majority 56 (98.2%) of the respondents agreed that late identification of pre-eclampsia posed a serious poor pregnancy outcome while one respondent disagreed.

Furthermore, the study findings showed that 56 (98.2%) of the respondents agreed that every pregnant woman should have the blood pressure checked and urine tested in all contact visits while one respondent was undecided. However, 52 (91.2%) of the respondents agreed that they served as role models in the prompt identification of pre-eclampsia and adherence to recommended practices of prompt identification of pre-eclampsia while 4 (7.0%) disagreed and one respondent was undecided.

The opinion of the respondents was assessed and the results showed that only 29 (50.9%) of the respondents agreed that health care

workers should be sanctioned for non-compliance while 19 (33.3%) of them disagreed and 9 (15.8%) were undecided.

Meanwhile, the study results showed that 55 (96.5%) of the respondents agreed that policies and procedures for prompt identification of pre-eclampsia should be adhered to at all times while 2 (3.5%) of them disagreed.

Furthermore, the study findings showed that 55 (96.5%) of the respondents believed that following prompt identification of pre-

eclampsia guidelines reduced rates of maternal and perinatal mortality while 1 (1.8%) of them disagreed and one was undecided.

However, 55 (96.5%) of the respondents agreed that prompt identification of pre-eclampsia is very important in the reduction of maternal and perinatal mortality and morbidity as compared 2 (3.5%) who disagreed. More so, 31 (54.4%) of the respondents agreed that workload affected their ability to screen pregnant women for pre-eclampsia while 2 (3.5%) disagreed and 24 (42.1%) were undecided (Table 3).

Table 3. Attitude towards prompt identification of pre-eclampsia.

Variables	Category	Frequency	Percentage
Prompt identification of pre-eclampsia is important measure in the reduction of maternal and perinatal mortality			
	Agree	56	98.2
	Disagree	1	1.8
Late identification of pre-eclampsia poses a serious poor outcome of pregnancy			
	Agree	56	98.2
	Disagree	1	1.8
Every pregnant woman should have her BP taken and urine tested in all contact			
	agree	56	98.2
	undecided	1	1.8
I serve as a role model in prompt identification of pre-eclampsia and adherence			
	Agree	52	91.2
	Disagree	4	7.0
	Undecided	1	1.8
In your opinion, healthcare workers should be sanctioned for non-compliance			
	Agree	29	50.9
	Disagree	19	33.3
	Undecided	9	15.8
Healthcare workers should be rewarded for compliance with protocols of prompt identification			
	Agree	47	82.5
	Disagree	7	12.3
	Undecided	3	5.3
Policies and procedures for prompt identification of pre-eclampsia should be adhered			
	Agree	55	96.5
	Disagree	2	3.5
Following prompt identification of pre-eclampsia guidelines reduce rates of maternal and perinatal mortality			
	Agree	55	96.5
	Disagree	1	1.8
	Undecided	1	1.8
Prompt identification of preeclampsia reduces maternal and perinatal mortality			
	Agree	55	96.5
	Disagree	2	3.5
Does workload affect your ability to screen pregnant women for pre-eclampsia			
	Agree	31	54.4
	Disagree	2	3.5
	Undecided	24	42.1
	Total	57	100.0

Assessment of practices of health care workers on prompt identification of pre-eclampsia

The practices of prompt identification of pre-eclampsia were assessed and the study results showed that only 39 (68.4%) of them always did proper screening of blood pressure and urine testing for all pregnant women while 18 (31.6%) of them did not. In addition, only 27 (47.4%) of the respondents indicated that they always had a urine test kit available in their unit at all times as compared to the 30 (52.6%) that disagreed.

More so, the study result indicated that only 39 (68.4%) of the respondents indicated that they always had blood pressure machines available in all clinical areas unlike those 18 (31.6%)

who lacked blood pressure machines. Similarly, our study results showed that respondents normally requested to acquire a new one 10 (17.5%), while 21 (36.8%) inform in-charges to repair and 26 (45.6%) of them borrow from other units.

Furthermore, the study results showed that only 19 (33.3%) of the respondents always had urine testing for all pregnant women in all contact visits while the majority 38 (66.7%) of them disagreed. In addition, 42 (73.7%) of the respondents revealed that they always instructed pregnant women on how to collect clean catch urine for testing as compared to the 15 (26.3%) of them that never did it. Similarly, the study results showed that only 27 (47.4%) of the respondents always monitored the blood pressure and urine protein for all pregnant mothers at all contacts while 30 (52.6%) of them disagreed (Table 4).

Table 4. Practices on prompt identification of pre-eclampsia.

Variables	Category	Frequency	Percentage
Always do proper screening (BP taking and urine testing) of all pregnant women			
	Yes	39	68.4
	No	18	31.6
Always have a urine test kit available in your unit all time			
	Yes	27	47.4
	No	30	52.6
Always have the BP machine available in all clinical areas			
	Yes	39	68.4
	No	18	31.6
The action you take when the BP machine is broken down			
	Request to acquire a new one	10	17.5
	Inform in charge to repair	21	36.8
	Borrowing from other units	26	45.6
Always have urine testing for all pregnant women in all contacts			
	Yes	19	33.3
	No	38	66.7
Always instruct pregnant women on how to collect clean catch urine for testing			
	Yes	42	73.7
	No	15	26.3
Always monitor the BP and urine protein for all mothers at all contacts			
	Yes	27	47.4
	No	30	52.6
	Total	57	100.0

DISCUSSION

The ideal for the prevention of maternal and neonatal morbidity and mortality is the prompt identification of signs and symptoms of preeclampsia among pregnant women. However, the study established a high (91.2%) level of awareness on prompt identification of pre-eclampsia, and the major sources of information were from training school while others got from heard from health facilities through continuous medical education and eight percent heard over the radio. In addition, our study found that the majority 98.2% of the respondents agreed that prompt identification of pre-eclampsia included blood pressure taking and urine testing in all ANC visits while only one respondent did not know. Our study finding corresponds with results from Nigeria which revealed that Community-based health care providers proved

to be aware that pre-eclampsia was due to the development of hypertension and proteinuria in pregnant women.

They had a good understanding of the features of the condition and were capable of identifying women at risk, initiating care, and referring women with this condition (Sotunsa J, Vidler M, Akeju D, 2016). On the other hand, our study finding is contrary to the result got from a study conducted in Southern Romania which revealed that physicians and midwives were not aware of pregnancy complications as well as had limited knowledge of pre-eclampsia and eclampsia (Garti I, Gray M, Tan JY, 2021). Our study finding is attributed to the availability of training conducted on prompt identification of signs and symptoms of pre-eclampsia. Thus, it's important to ensure that midwives should engage in training on prompt identification of signs and symptoms of pre-eclampsia.

The study also established that sixty percent of the respondents had ever attended training on the identification of pre-eclampsia as compared to the thirty-six percent that never had training. However, our study finding contradicts with result from a study in Kenya which revealed that one of the biggest factors that affected health care providers was having poor knowledge of preeclampsia diagnosis (Dullo Y 2018). This is because the health care providers never had refresher course on pre-eclampsia and so had not been updated on the guidelines of PET diagnosis.

Relatedly, a study in Uganda revealed that in Uganda during the world celebration day of pre-eclampsia revealed that most health workers in the district, lack capacity to manage the condition (Ooms GI, Kibira D, Reed T, 2020). However, a study conducted in Mozambique revealed that health workers had not been trained to management obstetric emergencies (Sevene E, Boene H, Vidler M, 2021). The various in our study finding to other studies is attributed to study area being regional referral hospital access to training is always available as compared to the lower-level health facilities.

The knowledge of the respondents was assessed on the effects of preeclampsia on both the mother and the child and the finding revealed that almost all of them were aware of the effect of preeclampsia. These included placental abruption, preterm labor, and maternal death while the effects on the baby were fetal growth restrictions low birth weight, and stillbirth. Similarly, a study conducted in Southern Mozambique revealed that 93% of the respondents had ever had about preeclampsia but only 41% of them were able to describe the signs and symptoms of preeclampsia (Boene H, Vidler M, Augusto O, 2016).

On the other hand, a study conducted in Nigeria found knowledge of the health care providers on the causes, diagnoses, and treatment of pre-eclampsia which may be attributable to lack of refresher trainings and absence of written practice guidelines on pre-eclampsia management (Olaoye T, Oyerinde OO, Elebuji OJ, 2019). Therefore, having trainings at the various department plays significant role in the diagnosis, treatment and management of pre-eclampsia among midwives in this study.

The study result revealed that the majority 98.2% of the respondents agreed that prompt identification of pre-eclampsia is important measure in the reduction of maternal and perinatal mortality while one respondent disagreed. In addition, the study result showed that 98.2% of the respondents agreed that every pregnant woman should have blood pressure and urine tested in all contact while one respondent was undecided. In addition, the study result showed that the majority 98.2% of the respondents agreed that late identification of pre-eclampsia poses a serious poor pregnancy outcome while one respondent disagreed. Similarly, a study conducted in Netherland among the community midwives revealed positive attitudes towards Pre -eclampsia screening. This is because identification of women at high-risk offers opportunities for prevention, early recognition and treatment (van Voorst S, Plasschaert S, de Jong-Potjer L, 2016).

On the contrary, the study result showed that 91.2% of the respondents agreed that they served as role models in the prompt identification of pre-eclampsia and adherence to recommended practices of prompt identification of pre-eclampsia while 7.0% of

them disagreed and one respondent was undecided. Despite this fact, 50.9% of the respondents agreed that health care workers should be sanctioned for non-compliance while 33.3% disagreed and 15.8% were undecided. Similarly, a study conducted in Kenya reveled that government's lack priority towards healthcare as evident in their attitude toward healthcare policy, underfunding of the hospitals, inadequate supplies, equipment, training, and staffing. The lack of supplies and equipment would certainly prevent doctors and midwives from being able to test for potential complications, negatively impacting the quality of preventative care for its patients (Bahl P 2016).

In addition, the study result showed that 96.5% of the respondents agreed that policies and procedures for prompt identification of pre-eclampsia should be adhered to at all times while 3.5% of them disagreed. On the contrary, a study conducted in Lagos Nigeria showed knowledge gap in the causes, diagnosis, and treatment of preeclampsia was attributed to lack of written practices guideline on pre-eclampsia management (Olaoye T, Oyerinde OO, Elebuji OJ, 2019).

Furthermore, our study result showed that 96.5% of the respondents believed that following prompt identification of pre-eclampsia guidelines reduces rates of maternal and perinatal mortality while one of them disagreed and one was undecided. More so, the study result showed that 96.5% of the respondents agreed that Prompt identification of pre-eclampsia is very important in the reduction of maternal and perinatal mortality and morbidity as compared to 3.5% who disagreed. Relatedly, a study conducted in Egypt on the quality of care for pregnant women included good practice based on prompt identification of preeclampsia by taking blood pressure and urine testing important to improve nurses' knowledge regarding the complication that may occur during pregnancy is very important (Ahmed Mohammed Sabry F, Ahmed Galal Atia H, 2021).

The practice of the respondents on prompt identification signs and symptoms of pre-eclampsia were assessed and the study result showed that only 68.4% of them always do proper screening of blood pressure and urine testing for all pregnant women while 31.6% of them did not.

On the contrary, a study conducted by Stellenberg EL revealed that the inability to diagnose and assess patients accurately were poor practices observed among 47.4% of the midwives. The practice of proper screening of blood pressure and urine testing in the study was found low due to lack of required equipment and supplies at various departments. Thus, the in-charges of various department need to ensure blood pressure machines and urine testing kits are available to prevent inappropriate screening (Stellenberg EL, Ngwekazi NL 2016).

In addition, the study results showed that only 47.4% of the respondents indicated that they always had a urine test kit available in their unit all the time as compared to the 52.6% of them who disagreed. More so, the study result indicated that only 68.4% of the respondents indicated that they always had blood pressure machines available in all clinical areas unlike those who lacked blood pressure machines.

On the other hand, a study conducted by Nkamba DM in Kinshasa revealed that there was poor availability of supplies and equipment to diagnose, prevent and treat pre-eclampsia within health facilities.

Furthermore, the study result showed that only 33.3% of the respondents always had urine testing for all pregnant women in all contacts while the majority 66.7% of them disagreed. In addition, the study results showed that 73.7% of the respondents revealed that they always instructed pregnant women on how to collect clean catch urine for testing as compared to the 26.3% of them that ever did it. The above finding is attributed to lack of blood pressure machines and some respondents disagreed to sanctioned health workers who did not adhere to guidelines for preeclampsia.

Similarly, the study results showed that only 47.4% of the respondents always monitor the blood pressure and urine protein for all pregnant mothers at all contacts while 52.6% of them disagreed. This is attributed to workload which affected health worker's ability to screen pregnant women for pre-eclampsia. Thus, in-charge of the various department need consider recruiting sufficient number of health workers to ease workload.

CONCLUSION

The study found that the level of knowledge was good, most had heard from training school, most agreed that prompt identification of pre-eclampsia was a combination of processes, which included; BP taking and urine testing in all ANC visits and or contact in health facility.

The attitude on prompt identification of pre-eclampsia was one of the most important measures in the prevention/or reduction of maternal and perinatal mortality and morbidity, and majority agreed that late identification of pre-eclampsia did pose a serious poor outcome of pregnancy that led to maternal and perinatal mortality and morbidity.

The practices on prompt identification of pre-eclampsia were moderate since slightly less than half did proper screening (BP taking and urine testing) of all pregnant women for pre-eclampsia as they visited the facility, but 52.6% of the respondents did not have urine test kit available at the unit all the time.

LIMITATIONS

The sample size was small due to the small population of nurse-midwives in the hospital; Participant dishonesty could have happened in response to the self-administered structured questionnaire. They might have provided fewer stigmatizing answers.

Research results related to LRRH midwives where the study was conducted. Therefore, the results obtained might not be generalized to all nurse-midwives in Uganda.

Only self-administered structured questionnaires were used to collect data. Other methods of data collection could have been used to obtain more in-depth and different data. These include structured

interviews, observation checklists, and individual qualitative interviews on patients or nurse-midwives.

DECLARATION

The researcher obtained an introductory letter from School of nursing and midwifery of Clarke international University and approval for data collection from CIU-REC. Thereafter, the permission to collect data was sought from Lira Regional Referral Hospital and the Hospital authority was approached for their permission. Written Informed consent was sought and obtained from the respondents before answering the questionnaire. They were more specifically informed about the objective of the study, and their participation in the study was voluntary, with no bad intention and the information was for study purpose and strictly anonymous with highest level of confidentiality.

CONSENT FOR PUBLICATION

All the authors have agreed for the paper to be published and all respondents were informed that responses got from them will be published through journal and no individual particulars will be revealed upon publication of the paper.

AVAILABILITY OF DATA AND MATERIALS

The data used for this article is accessible from the corresponding author upon request (Ms Agnes Agwang).

COMPETING INTERESTS

The authors declare they do not have any conflict of interest and they have no affiliations and non-financial interest in the materials discussed in the manuscript.

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There was no funding support offered to this study.

AUTHORS CONTRIBUTION

AA; spearheaded the development of the concept paper and research protocol as well as compiling the entire manuscript; RA; write background and methodology, JD; designed data collection tools and conducted analysis and report writing.

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