

Evaluation of the Challenges Faced by Health Workers Managing Patients with Severe Malaria in Kanyabwanga Health Centre III Mitooma District Uganda  
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**ABSTRACT**

Globally, the WHO estimates that in 2010 there were 219 million cases of malaria resulting in 660,000 deaths. Over the past years, malaria has been a challenge in Uganda. From viewed records of Kanyabwanga health centre III in Mitooma district in 2013/2014 for both inpatient outpatients indicated out of 1570 admissions, 631 patients had severe malaria and were referred to higher levels for treatment. The study was Quantitative cross-sectional. Simple-random sampling was used to select health centers and health workers as participants in the study were selected using convenient sampling method to recruit 48 from whom data was collected using a structured questionnaire. The researcher found out that Female health workers formed the majority (58.4%) with moderate age (41.6%). Nurses were majority among health service providers that manage severe malaria (64.5%) who mostly (37.5%) stay far from the facility. 91.6% and 54.2% reported their Patients walking over 5km and 10km respectively to seek malaria treatment.. Health workers lack training on severe malaria management. The researcher concluded that the client related challenges faced by health workers in management of severe malaria in lower health centers include: long distances, delay to come for treatment in severe cases, self-medication before seeking treatment from the health facility, poor compliance to treatment. The health facility related challenges faced by health workers in management of severe malaria in lower health centers include: inadequate equipment to use, scarcity of facilities, delayed referral of patients not until treatment fails and large numbers of severe malaria. Health workers related challenges during care for patients with severe malaria in lower health centers include: lack of training on management of severe malaria and inadequate staffs at the health facility.

**Keywords:** Malaria, Inpatients, Outpatients, Health workers, Health centers.

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**INTRODUCTION**

Globally, the WHO estimates that in 2010 there were 219 million cases of malaria resulting in 660,000 deaths [1,2,3,4,5]. Others have estimated the number of cases at between 350 and 550 million for falciparum malaria [2] and deaths in 2010 at 1.24 million [3,6,7,8,9], up from 1.0 million deaths in 1990 [4]. The majority of cases (65%) occur in children under 15 years old [3]. About 125 million pregnant women are at risk of infection each year; in Sub-Saharan Africa, maternal malaria is associated with up to 200,000 estimated infant deaths yearly [5,10,11,12,13,14]. There are about 10,000 malaria cases per year in Western Europe, and 1300-1500 in the United States [6,15,16,17,18]. About 900 people died from the disease in Europe between 1993 and 2003 [7,19,20]. In 2012, there were 207 million cases of malaria. That year, the disease is estimated to have killed between 473,000 and 789,000

people, many of whom were children in Africa [8,21,22,23,24,25]. The disease is widespread in the tropical and subtropical regions that exist in a broad band around the equator [9,26,27]. The World Health Organization reports there were 198 million cases of malaria worldwide in 2013. This resulted in an estimated 584,000 to 855,000 deaths, the majority (90%) of which occurred in Africa [8]. In Africa an estimate for 2009 reported that countries with the highest death rate per 100,000 of population were Ivory Coast (86.15), Angola (56.93) and Burkina Faso (50.66) [11]. A 2010 estimate indicated the deadliest countries per population were Burkina Faso, Mozambique and Mali [3,23,24,25,26,27]. In Uganda, malaria accounts for 35% - 50% of outpatient visits, 35% of inpatient admissions and 10% - 15% of inpatient deaths in public and private-not-for-profit health facilities and efforts

to improve the management of severe malaria in Uganda at formal health facilities started in 1998, [10] mainly through training workshops using adapted WHO training materials. Despite these efforts, severe malaria management

remains challenging, as it depends on the availability of treatments, blood transfusion services, functional referral systems, good infrastructure and adequate organization of hospital services.

#### **Statement of Problem**

Globally, 3.4 billion people in 106 countries and territories are at risk of malaria. These are majorly located in tropical and sub urban areas but more predominantly in Africa where it is estimated to cause 1 million deaths annually [8] in In Uganda, malaria accounts for 40% of all outpatient visits, 25% of all hospital admissions and 14% of all hospital deaths according to Uganda's Ministry of Health [12]. Uganda has the world's highest malaria incidence, with a rate of 478 cases per 1000 population per year. In addition it has the third largest malaria burden in Africa and the sixth largest in the world. Currently, 95% of our population is at a highly endemic risk, and the remaining 5% of the country is prone to malaria epidemics. An estimated 12 million clinical

cases are treated annually in the public health system alone [12], While it is related illnesses contributing 25%-30% of deaths among children aged less than 5 years [10]. In Mitooma District, management of severe malaria is challenging. Records of 2013/2014 for both inpatient outpatients from Kanyabwanga HCIII indicated a total of admissions 1570. Out of these numbers, a total of 631 patients having been diagnosed of severe malaria were referred to higher levels for treatment, [13]. This indicates 40.2% of hospital admissions, 15.2% higher to 25% national average admissions due to malaria. Whether all these cases are severe that require referral, or there are other existing hindrances to health care providers raise a need to be studied.

#### **Aim**

To assess the challenges faced by health workers managing patients

with severe malaria in Mitooma district

#### **Specific Objectives**

To assess patients related challenges faced by health workers managing severe malaria in lower health centers in Mitooma district. To assess the health facility related challenges faced by health workers

managing severe malaria in lower health centers in Mitooma district. To assess health worker related challenges during care for patients with severe malaria in lower health centers in Mitooma district.

#### **Research Questions**

What is the patient's related challenges faced by health workers managing severe malaria in lower health centers In Mitooma district? What are the health facility related challenges faced by health workers

managing severe malaria in lower health centers? What are health worker related challenges affecting the care for severe malaria clients in lower levels in Mitooma district?

#### **Justification for the Study**

The findings that will be generated from this study will be utilized by nurses in practice to improve the management of severe malaria. The study is expected to act as a reference to other nursing students and future researchers. The results of this study will avail new information that can be utilized by nursing scholars and students that will help them

understand emerging challenges surrounding the management of severe malaria. Findings in this study will help the health sector in Mitooma district to discover challenges faced by health workers in managing severe malaria, as well as finding out possible solutions in order to improve on the health standards

## METHODOLOGY

### Study design

The study was cross-sectional design of quantitative in nature. This study design was selected because it aids in rapid data collection and allows a snap short interaction with a small group of respondents at one point in time thus

allowing conclusions across a wide population to be drawn. The study design was used to assess challenges faced by health workers while managing severe malaria at lower level facilities in Mitooma district.

### Area of Study

The study was carried out in Mitooma District from greater Bushenyi region in south western Uganda, approximately 400 km from Kampala. It has 7 sub-counties, and 40 parishes, with 390 villages. It is served by Mitooma health centre IV as a major higher facility in the district. The major economic activities in this area include trade and subsistence farming in both animals and crops. Mitooma district

was chosen due to being located in south western Uganda where malaria has remained a problem through recent years and due to alarming findings from Kanyabwanga health centre (iii) located in Mitooma that referred 40% of all its patients to higher levels of health care facilities in 2013/2014 due to severe malaria.

### Study population

The study targeted all health workers at lower level facilities in Mitooma district that; Nurses, Midwives, Laboratory assistant, nursing assistant and clinical officer. These were selected from four lower level health facilities, that is; HC IIIs that were selected by simple random

sampling among all the other facilities in Mitooma district. Health centers IIIs were considered for sampling in order to meet the demands of sample size which would not be met by health centre IIs and drug shops.

### Sample size determination

The sample size of population were determined using the *KishandLeslieFormula*, of 1965 as shown below.

$$N = \frac{Z^2 PQ}{D^2}$$

Where;

N= sample size.

Z = standard deviation at the required degree of accuracy which at 95% is 1.96 (3.8416)

P = proportion of health workers that manage severe malaria at lower health levels in Mitooma district (0.155)

Q = 1-p (percentage of health workers in Mitooma district) Q = 1- 0.155 = 0.845

D = the degree of error the researcher will be able to accept is 5% = 0.0025

$$N = \left( \frac{1.96^2 * 0.5 * 0.5}{0.05^2} \right)$$

N=384 participants.

Since my sample population n was less than

Equation 2: Target population  $n < 10,000$ ;  
According the Mitooma health report 2014/2015 showed that 52 health workers (Nurses, Midwives, Laboratory assistant,

nursing assistant and clinical officers) in total of Kanyabwanga health centre III, Kasensero Health centre III, Bitereko health

centre III and Kiyanga health centre III were providing health care services to people in this catchment area. Therefore N= population of Nurses, Midwives,

$$nf = \left( \frac{n}{1 + \frac{n}{N}} \right); \quad nf = \left( \frac{384}{1 + \frac{384}{52}} \right); \quad nf = 46 \text{ respondents}$$

Where Nfis sample size for N, population less than 10,000 (Nurses, Midwives, Laboratory assistant, nursing assistant and

Laboratory assistant, nursing assistant and clinical officers working in these health centre, N=52

clinical officers working at lower health centers above).However, I used 48 respondents.

#### **Sampling procedure**

The researcher used simple random sampling to select four lower level health centers then convenient sampling was used to get the health workers that were

present at health facilities in time of data collection represented all health workers population.

#### **Inclusion criteria**

The study included all health workers at lower health facility levels in Mitooma

district who had consented to participate in the study freely and voluntarily.

#### **Exclusion criteria**

The study excluded all non-medical staffs at lower health facilities, those who were in maternity and annual leave and those

who did not consent to participate in the study voluntarily were excluded.

#### **Dependent of variables**

The dependent variable was managing severe malaria in

lower health centers in Mitooma district.

#### **Independent variable**

Patient related like distance to health facility, compliance to treatment, timely seeking treatment, ability to meet referral requirement and others. Health facility related issues like drug stock outs, larger catchment areas, human resource at the

health centres space and equipment to use in management of severe malaria.Health worker related like knowledge on diagnosis, treatment and supportive care to severe malaria patients.

#### **Research instruments**

A Semi structured questionnaire was designed and used to collect quantitative data. This is in accordance with the resources and time allocated for data collection. The semi structured questionnaire was divided into three sections in order of study research

questions to answer them from responses collected from participants'. Pre testing of questionnaire was done from Bushenyi health centre in order to check its relevance, completeness, and clarity of questions.

#### **Data collection procedure**

The researcher introduced herself to the health center in charges, with introduction letter from Kampala International University. Thereafter, consent sought; the similar request were forwarded to the focus person directly to each different

respondent following the checklist printed in English and answered as self-administered unless where guidance was deemed necessary by a participant then it was given.

#### **Data management**

Data completeness and consistency was checked by the researcher. Data cleaning and editing done, missed values were

statistically handled at the time of data collection to help address concerns caused by incomplete data.

### Data processing and analysis

Data entry, coding and analysis were performed using SPSS version 20 software package. To explain the study population in relation to relevant variables, frequencies, percentages and summary

statistics were used. Associations between dependent and independent variables were assessed and presented using tables, graphs, and pie charts.

### Ethical consideration

Institutional consent was obtained from the University. The researcher was provided with the letter of introduction to health centre in charges, and acquired consent of the health unit administration before any information was collected. Confidentiality was maintained to the best of the researcher's ability. The researcher assured the heads of records that no

names attached to findings for confidentiality and that the information was used strictly for academic purposes. The health facilities were informed of likely risks which are non-existent in this particular study and benefits of the study. Autonomy for the health workers was respected by giving full information and allowing them to make a decision.

### Limitations of the study

Limited time period but this was overcome by maximum utilization of little available time. Inadequate funds: The study was limited by the inadequate finances given the high operating costs of transport,

photocopying, typing and other research costs. The researcher however, sought assistance from relatives and friends to provide funds for research.

## RESULTS

### Demographic characteristics of participants.

**Table 1: Demographic characteristics of health workers. n=48**

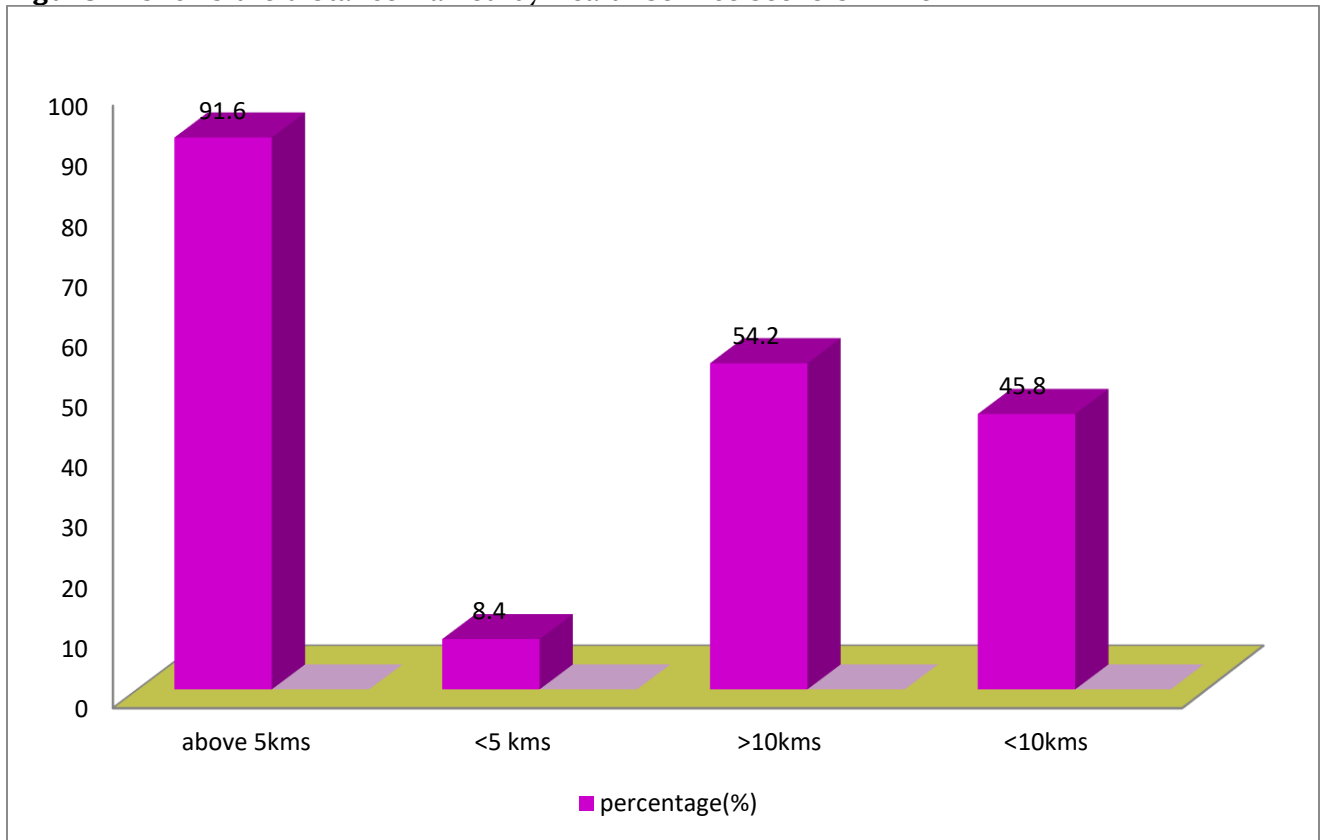
Demographic character	Specification	Frequency	Percentage
Sex	Male	20	41.6%
	Female	28	58.4%
Age	Below 20	00	00%
	20-24	4	8.3%
	25-29	18	37.5%
	30-34	20	41.6%
	35 and above.	6	12.5%
Designation	Nurse	31	64.5%
	Lab technician/assistant	01	2.1%
	Clinician	02	4.2%
	Midwife	04	8.4%
	Nursing assistant	10	21%
	Others specify.....	00	00%
Residence	At facility	12	25%
	Near the facility	15	31.5%
	Far from facility	18	37.5%

Majority of the health workers were females with (28) 58.4%, moderate age was 30-34, with (20) 41.6%, 35 years and above. Nurses formed the majority of designation with (31) 64.5%, followed by nursing assistants with (10) 21%, while lab

technicians/assistants were the least with (1) 2.1%. Only (12) 25% of the health workers stayed at their facilities, while others were coming from a distance far from the facility (18) 37.5% who was the majority.

**Client related challenges faced by health workers.**

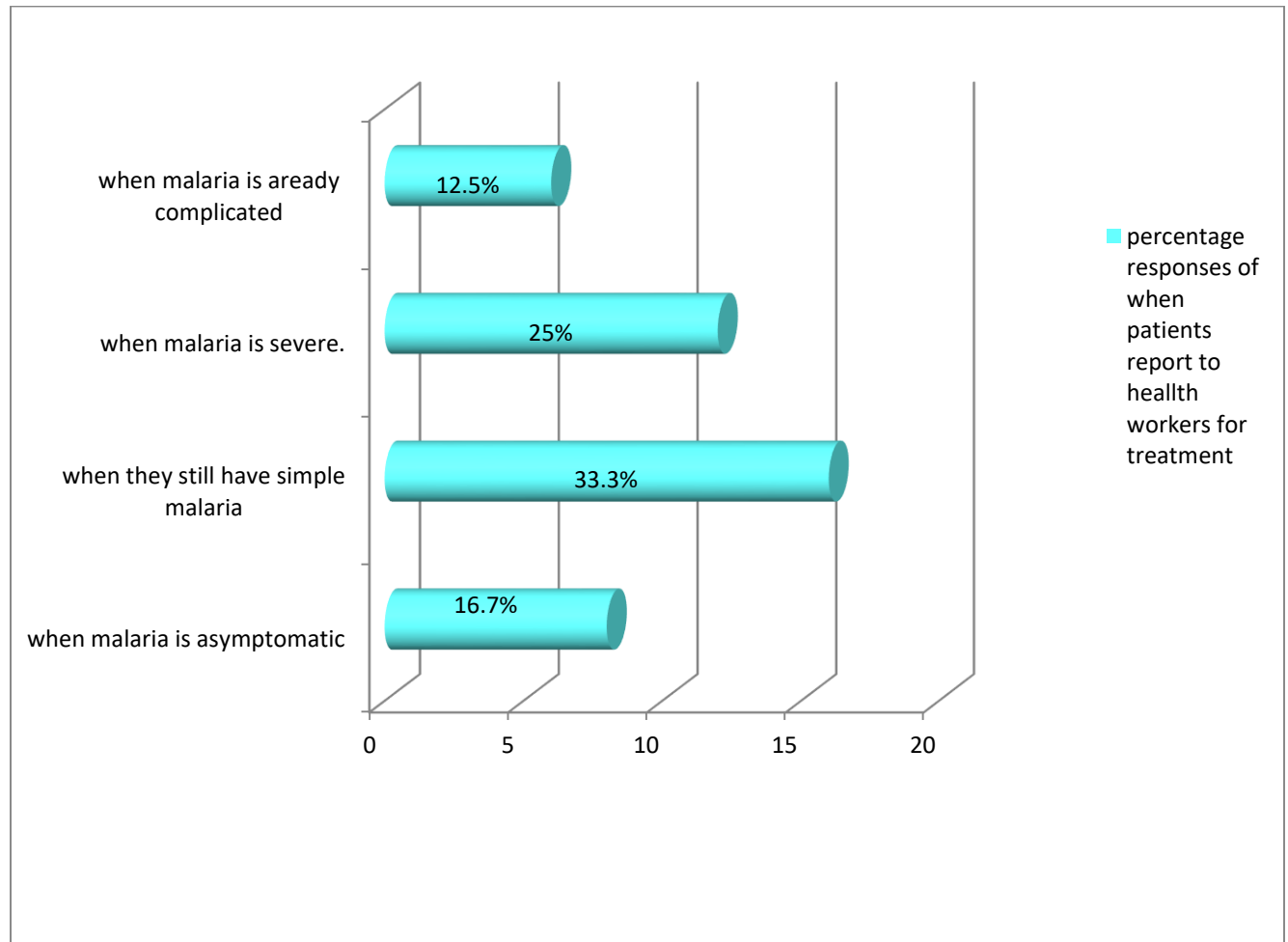
**Figure 1:** shows the distance walked by health service seekers. n=48



Majority of health workers (44) 91.6% said that their patients come from distance of over five kilometers while 8.4 % said that patients come from distance of less than 5kilometers. 54.2% of health workers said

that some of their patients move distance over 10 kilometers while 45.8 said that their patients come from distance of less than 10 kilometers.

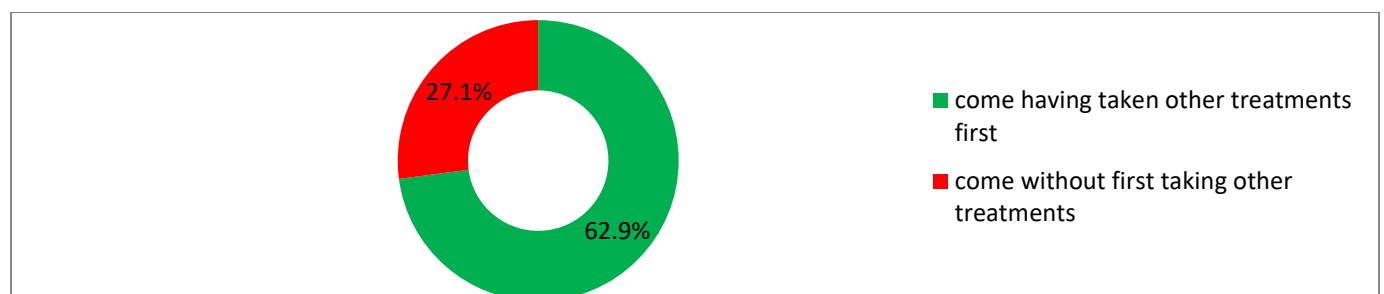
**Figure 2:** shows when the patients come for treatment (n=48)



(16) 33.3% of health workers said that patients normally report to them for treatment when malaria is still simple,

(6) 12% report when malaria is complicated.

**Figure 3:** showing the history of clients handled by health workers report to have taken other treatments before seeking treatment from a health facility (n=48)



(35) 62.9% of health workers reported to have been receiving patients with history of first treating themselves and come to

the facility when things fail, while (13) 27.1% had not had such histories from malaria patients.

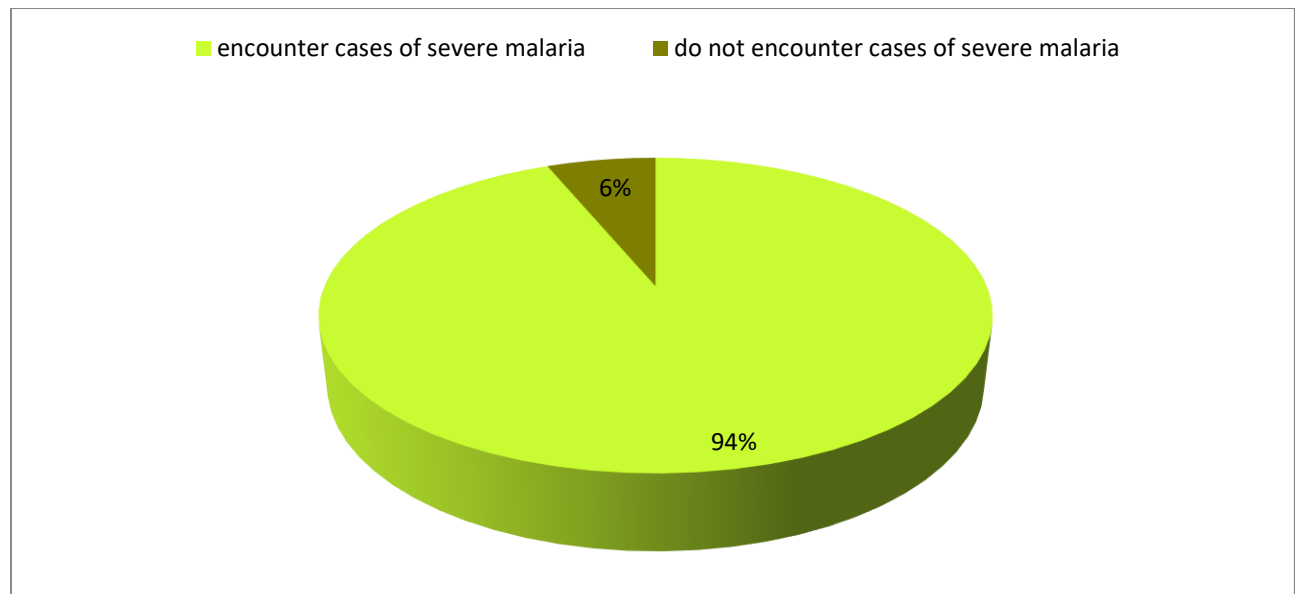
**Table 2:** shows patients comply with treatment orders for anti-malarial.

Health workers that had a malaria patient refuse a drug. n=48	yes	31	64.5%
	no	17	35.5%
Form of drug that refused by a malaria patient. n=31	oral tablets	15	48.1%
	Intramuscular	20	64.5%
	Intravenous drug	5	16.1%
	Rectal placeboes.	00	00.0%

Majority of the respondents 64.5% (35) of the health workers had had a patient refuse a drug for malaria, 20 (64.5%) refused intramuscular, (15) 48.1% refused oral tablets while no patient refused rectal placeboes.

**Health facility related challenges.**

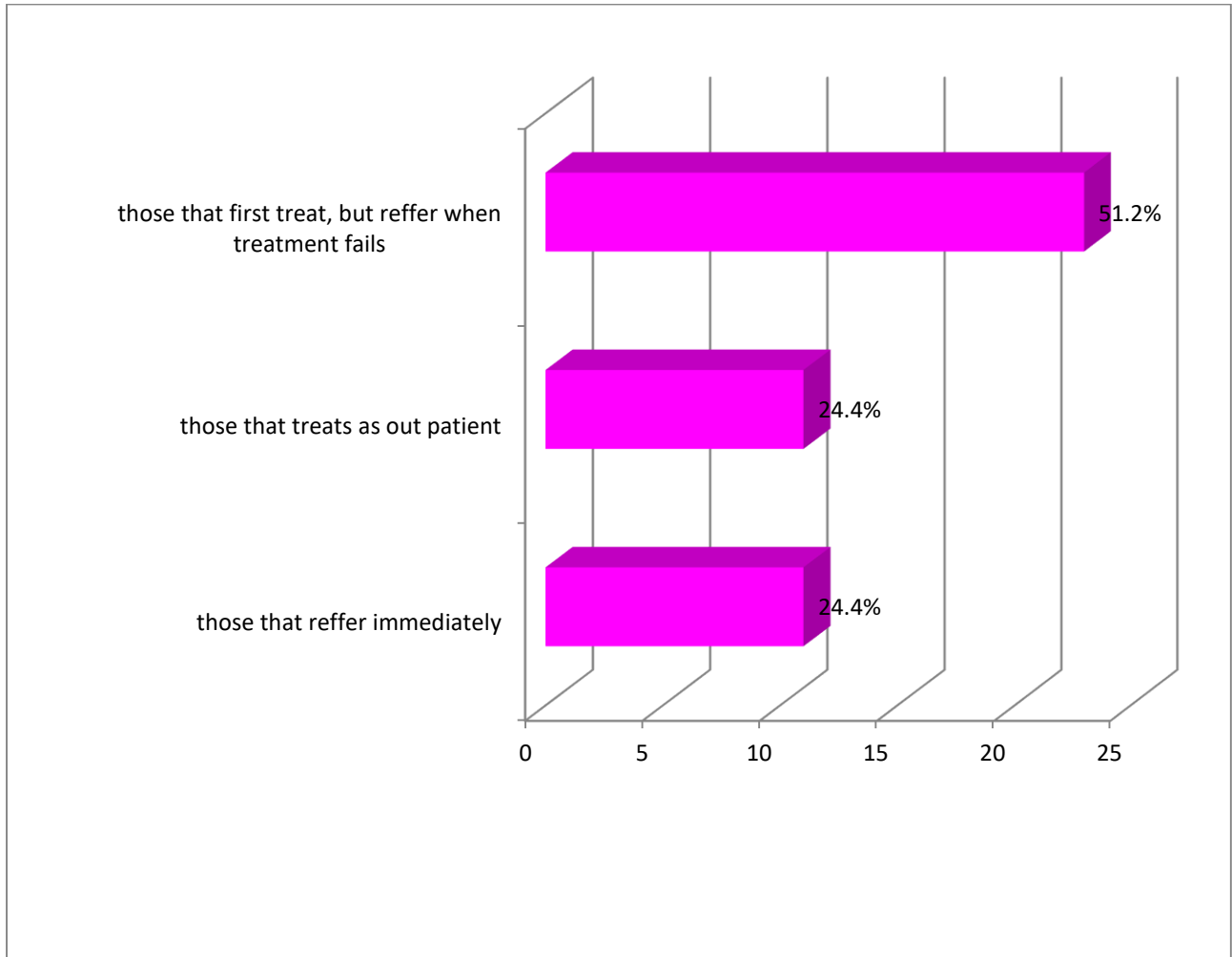
**Figure 4:** shows whether health workers encounter severe malaria cases at their facilities (n=48).



(45) 94% of the health workers said that they do encounter cases of severe malaria at their facilities, while (3)6% said that they do not.



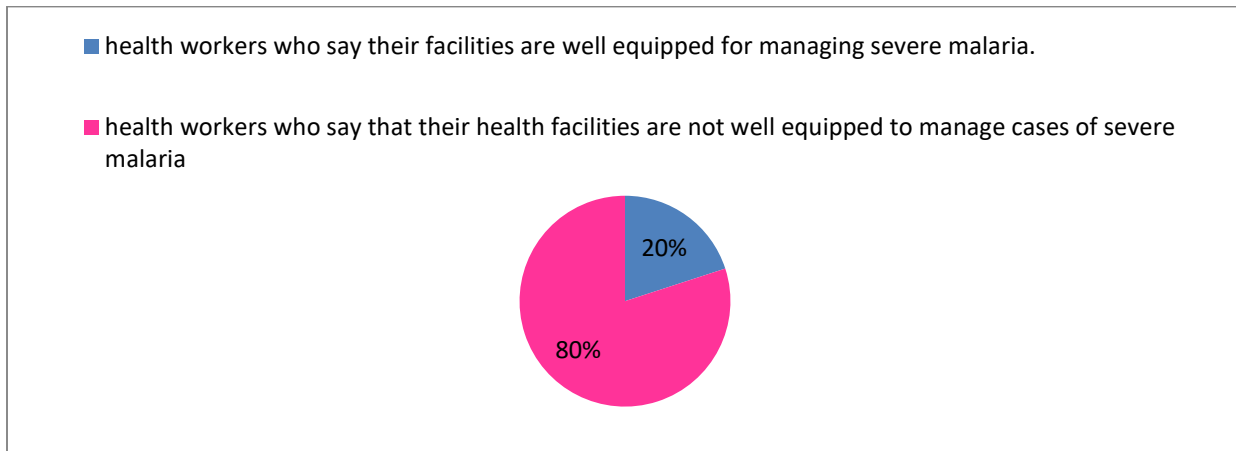
**Figure 5:** shows how health workers manage patients of severe malaria. n=48



Majority of health workers (23) 51.2% first treat their patients as inpatient, but refer if treatment fail whereas the rate at which severe

malaria patients who are treated as outpatient and those that are referred immediately was the same (24.4%).

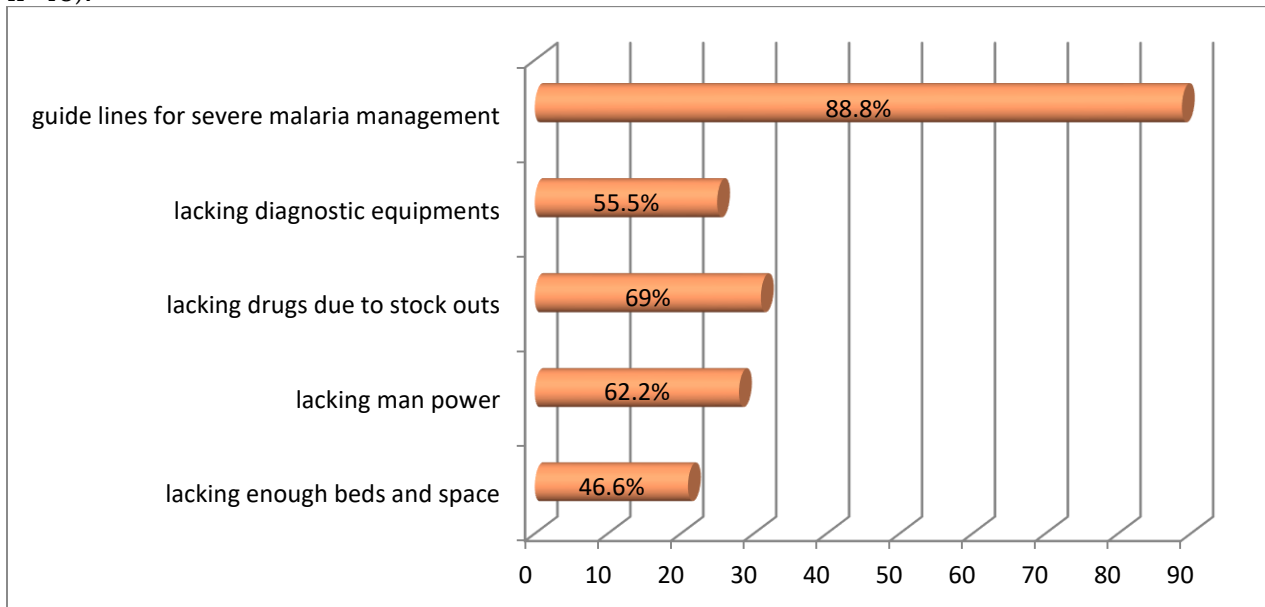
**Figure 6:** Report on facilities being equipped for managing severe malaria cases (n=48)



Majority of health workers (38) 80% say that their health facilities are not

well equipped for managing severe malaria.

**Figure 7:** scarcity in facilities that hinder managing severe malaria in lower health facilities. (n=48).



Majorly, health workers felt they lacked guidelines for managing severe malaria cases 40 (88.8%), while stock outs for drugs that treat severe malaria and

inadequate manpower were also among largely reported challenges with 31(69%) and 28(62.2%) percentages respectively.

**Health workers related challenges**

**Table 3: Training on severe malaria management. (n=48)**

Training status health workers severe malaria management.	WHETHER TRAINED	FREQUENCY	PERCENTAGE
Had CME or workshop training on management of severe malaria=48	Yes	12	25%
	NO	36	75%
which training received by health workers'=1	managing malaria pregnancy	7	58.3%
	clinical and laboratory diagnosis of malaria	2	16.6%
	managing severe malaria/complicated malaria	1	8.3%
	managing malaria complications	00	00%
	others	1	8.3%

(36) 75% of the health workers had never had CME/workshop training on management of severe malaria from lower health centers while 12(25%) had never had any CME or workshop. Of 12 (25%) who had received training on managing malaria,

7(58.3%) had been trained on managing malaria in pregnancy, 2(16.6%) on clinical and laboratory diagnosis of malaria, whereas only 1(8.3%) had received training on managing severe/complicated malaria.

**Table 4:** shows the number of health workers in the health facilities (n=48)

Health workers	Frequency	Percentage (%)
Nurse	31	64.5
Lab technician/assistant	01	2.1
Clinical officers	02	4.2
Midwives	04	8.4
Nursing assistants	10	21
Total	48	100s

Out of 48 respondents, majority of the health workers were nurses 31(64.5%) while few were laboratory technicians or

assistants 01(2.1%) followed by clinical officers 02(4.2%).

## DISCUSSION

### Demographic characteristics.

The majority of the respondents, 28(58.4%) were female participants while 20(41.6%) of the respondents were males. This indicates that female respondents were more actively involved in availing necessary data to the study. This also implies that females form the majority staffing in lower health centers in Mitooma district health sector; however, there is no literature that shows a diversity of care while managing severe malaria that is based on sex of health service providers, hence non-significant to whatever findings that are got in this study. Out of 48 respondents, 20(41.6%) health workers were aged 30-34 years and least 4(8.3%) were 20-24 years and above. This could be due to training modality in Uganda where average study time to qualify from training institution into a professional above 23 years. This added onto job opportunity struggles in the country reduces the number of young ages. However, this would be good for experience in managing severe malaria since it implies that majority have taken at least five years in the field of managing patients given that they finished training at an average age. Hence managing severe malaria would not be a big challenge to the majority. Nurses formed the majority of designation with 31(64.5%). This concurs with findings from study by [14] on capacity to appropriately diagnose severe malaria, which indicated that at the inpatient units, nurses/midwives represented the majority of the staff (40%). This is true as the nurses health professionals form a big proportion of national human resource as in health

sector with approximately the same large percentage in Uganda. There were a meager number of laboratory persons as well as clinicians, implying that though nursing care could be adequate in managing severe malaria in these lower health centers, there could be a deficit in diagnosis and prescriptions which may call in task shifting from nurse's roles to performing laboratory and clinician's role. This may in turn paralyze the system as it may interfere with nursing care for patients, and also creating a gap in laboratory diagnosis and clinical management of severe malaria hence hindering efficiency of management. This findings concurs with the findings of [15] who identified that most African countries lack the required infrastructure and trained laboratory personels. Only 12(25%) of health workers stay at the facilities while 18(37.5%) were staying in far distances to the majority. Hence in case of need for help, unless the health workers are in time of presence at the centers, they are hard to access by the severe malaria patients. Given that severe malaria is a medical emergency that require immediate medical attention, it may not be practically feasible in this situation where most of health workers stay far from the health units. This would delay intervention, interfere monitoring and evaluation of inpatient treatment outcomes, and follow-up of the clients. This may all read to complicated malaria, treatment failures, situations which would be hard to manage from lower health centers.

### Client related challenges

Majority of health workers (44) 91.6% said that their patients come from distance of

over five kilometers while 4(8.4 %) said that patients come from distance of less

than 5kilometers. 54.2% of health workers said that some of their patients move distance over 10 kilometers while 45.8 said that their patients come from distance of less than 10 kilometers. This study finding contradicts with a study conducted in Mbarara [10] which disclosed that only 49% of households were within 5km of the health facility indicating a barrier to obtain prompt and quality treatment for severe malaria for majority of Ugandans. 91.6% of health workers said that some clients move over 5 kilometers in search of treatment for severe malaria while 8.4% said that they stayed in distances less than 5kilometres. 16(33.3%) of health workers said that patients normally report to them for treatment when malaria is still simple, while 6(12%) report when malaria is complicated. This study finding can be supported by the finding from the records of Jinja district (HIMS) that about 60%-83% of the population treat malaria with drugs got from neighborhood drug shops without medical advice and use of only health facilities when self-medication fails as indicated .This could be the reason seeking medical care when malaria is complicated. This can however be

#### **Facility related challenges**

45(94%) of the health workers said that they do encounter cases of severe malaria at their facilities, while 3(6%) said that they do not. This study finding contradicts with the study findings of [18] who found out that many patients particularly more than 40% of children die from febrile illness at home without prior contact with the formal health care system. But is in line with a report by the [10] which indicated that Uganda, malaria accounts for 35% - 50% of outpatient visits, 35% of inpatient admissions and 10% - 15% of inpatient deaths in public and private-not-for-profit health facilities. Majority of health workers 23( 51.2%) first treat their patients as inpatient, but refer if treatment fail whereas the rate at which severe malaria patients who are treated as outpatient and those that are referred immediately was the same 11 (24.4%). This study finding concurs with the study findings of [19] who found out that Uganda is highly populated where 52% of the population

challenging in situations of limited manpower space and hospital beds. 35 (62.9%) of health workers reported to have been receiving patients with history of first treating themselves and come to the facility when things fail, while 13 (27.1%) had not had such histories from malaria patients. This study finding concur with study finding the study conducted from records of Jinja District HMIS about 60%-83% of the population treat malaria with drugs got from neighborhood drug shops without medical advice and use of only health facilities when self-medication fails as indicated. Majority of the respondents 64.5% (31) of the health workers had had a patient refuse a drug for malaria. 20(64.5%) refused intramuscular, 15 (48.1%) refused oral drugs while no patient refused rectal placebos. This study finding is in line with the study finding of by [16], who revealed that people fail to get proper treatment due to fear of taking drugs or injections. Also this study finding concurs with a study done by [17] who identified that patients resist freely swallowing of medications especially children and that most anti-malarial drugs are bitter.

lives below the international poverty line of US\$1.25 per day. Majority of health workers (38) 80% say that their health facilities are not well equipped for managing severe malaria. Management of severe malaria needs well equipped facilities. Therefore this study finding concurs with study carried out by [20] that stated that effective management of severe malaria is relatively expensive and relies heavily on well-equipped hospitals, with adequately trained health workers, both often lacking in sub-Saharan Africa. Majorly, health workers felt they lacked guidelines for managing severe malaria cases 40 (88.8%), while stock outs for drugs that treat severe malaria and inadequate manpower were also among largely reported challenges with 31(69%) and 28(62.2%) percentages respectively. This study is in line with the study done by [21] that found out there are inadequate and delayed funding, delayed drug deliveries and poor storage were identified

as the main causes of stock-outs hence difficulties in managing severe malaria yet it is a life threatening medical emergency

that requires prompt and effective treatment to prevent death.

#### **Health worker related challenges**

36(75%) of the health workers had never had CME/workshop training on management of severe malaria from lower health centers while 12(25%) had never had any CME or workshop. Of 12 (25%) who had received training on managing malaria, 7(58.3%) had been trained on managing malaria in pregnancy, 2(16.6%) on clinical and laboratory diagnosis of malaria, whereas only 1(8.3%) had received training on managing severe/complicated malaria. The above study findings are in line with [22; 10], who found out that there is still need more training of health workers and the provision of simple diagnostic tools have been identified as potential strategies to improve malaria case management and encourage the national prescription of

anti-malarial drugs. Out of 48 respondents, majority of the health workers were nurses 31(64.5%) while few were laboratory technicians or assistants 01(2.1%) followed by clinical officers 02(4.2%). The number of clinicians and laboratory staffs are too low yet they are supposed to work hand in hand in order to diagnose some condition like malaria hence posing a challenge in the management of malaria at lower levels. This study finding is in line with a study done in Kabarole District, western Uganda done by [14] to evaluate the capacity to appropriately diagnose and treat malaria at rural health centers indicated that at the inpatient units, nurses/midwives represented the majority of the staff (40%).

#### **CONCLUSION**

- i. The client related challenges faced by health workers in management of severe malaria in lower health centers include: long distances, delay to come for treatment in severe cases, self-medication before seeking treatment from the health facility, poor compliance to treatment.
- ii. The health facility related challenges faced by health workers in management of severe malaria in lower health centers

include: inadequate equipment to use, scarcity of facilities, delayed referral of patients not until treatment fails and large numbers of severe malaria cases.

- iii. Health workers related challenges during care for patients with severe malaria in lower health centers include: lack of training on management of severe malaria and inadequate staffs at the health facility.

#### **Recommendations**

The researcher recommend that there be quality deployment of all professional be considered to bridge the gap of task shifting from nursing care to clinical and laboratory roles to ensure continuity of all forms of patient care in as nursing care, pharmacological care and diagnostic roles are concerned. Catchment areas for these facilities should be reduced by establishment of other canters to reduce long distances walked by severe malaria patients. This will reduce self-treatment among the patents. Also there should be problem focused health education talks to people of Mitooma on early treatment of malaria hence will be treated at nearby

health centre IIs thereby reducing distances, referral, and congestion at health centre IIIs. The researcher recommend that the government through ministry of health and Mitooma district local government should improve equipping lower health facilities and ensure timely supply of drugs and other supplies in order to avoid challenges of drug and other supplies` stock outs. The researcher recommend that there be refreshing courses on managing severe malaria among health workers in lower health centers, and establishment of protocols on management of severe malaria to bridge the knowledge gaps in

assessing, diagnosis and management of severe malaria cases there by acquiring quality planning and implementations while managing severe malaria.

Implications to Nursing Practice. These results implies that nurses are the major health workers in managing severe

malaria, hence the effectiveness and outcomes of managing severe malaria depends entirely on them hence they should be a chief target while equipping health workers on severe malaria management.

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