CHALLENGES FACED BY HEALTHCARE WORKERS' PERFORMANCE IN THE INTENSIVE CARE UNIT OF ST. MARY'S HOSPITAL LACOR. A CROSS-SECTIONAL STUDY.

Lawrence Agenonga, Nassanga Teddy Ssemambo

St Michael Lubaga Hospital Training School.

ABSTRACT.

Background:

In Uganda the burden of critical illness is overwhelming with an unmatched number of ICU beds which was estimated to be at one per a million population with a few number of health care providers, this led to many patients' deaths because of the lack of material and trained human resources to provide care. Therefore, the purpose of this study was to determine the challenges faced by healthcare workers' performance in the intensive care unit of St. Mary's Hospital Lacor, Gulu District.

Methodology:

The study employed a descriptive cross-sectional design implying quantitative methods of data collection and a self-administered questionnaire to collect data from a sample of 30 health workers who were sampled using a convenient sampling method. Data was collected from respondents after seeking consent from them analyzed and entered manually into the computer using Microsoft Excel Office programs 2016 which presented it in fom1 of tables, graphics, and piecharts.

Results:

The majority 21(70%) revealed that they do not feel happy working in the ICU, 19(63.3%) experienced some family-related issues, and 25(83.3%) reached home late due to a heavy workload. 27(90%) said that they were not offered accommodation at the facility, 20(74%) mentioned that the distance was 1-5km and 17(56.6%) revealed that conditions were not pleasing.

Conclusion:

The findings revealed challenges faced by healthcare workers in the ICU and highlighted job satisfaction, family-related issues, workload, staffing levels, accommodation, motivation, and incentives.

Recommendation:

The ministry should ensure the provision of adequate resources, support, and incentives which could potentially improve job satisfaction, performance, and overall well-being of health workers, leading to better patient care outcomes in the ICU setting.

Keywords: Challenges, Health Care Workers, Performance, Intensive Care Unit Submitted: 2023-10-28 Accepted: 2023-11-19

Corresponding author: Lawrence Agenonga

Email: adverilarry@gmail.com

St Michael Lubaga Hospital Training School

BACKGROUND OF THE STUDY.

Globally, in less than 3 years, over 6 million people have died due to critical care of patients being under-prioritized with no immediate solutions. Vaccines, oxygen, ventilators, diagnostics, and therapeutics are essential to addressing the global burden of critical illness, but all independently fail when infrastructure, systems, provider training, and government accountability are lacking because of a problem in health care services regarding resource allocation, in intensive care units (ICUs), (Crawford et al., 2023).

In the United States of America, there are approximately 4 million ICU admissions per year (Navarrete-Opazo et al.,

2021). In Europe, each year, approximately 164,000 patients are admitted to ICUs in England, Wales, and Northern Ireland; of these, 79% survive to leave hospital, (Marshall et al., 2017). All these admissions show that every healthcare system has to cater to critically ill patients, regardless of the availability of resources. However, in many low-income countries, ICUs are underdeveloped because they require expensive resources(Malelelo-Ndou et al., 2019). Even in high-income countries, physicians have to make decisions regarding resource allocations in ICUs, (Schultz et al., 2019).

In South East Asia, although there is an increase in the

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number of ICUs, effective service delivery to critically ill patients in ICUs remains a big challenge and many patients die because of the lack of material and trained human resources to provide due care(Craig et al., 2020). Shortage of resources is sometimes related to increased demands for healthcare services in the intensive care units, linked to population growth and changes in demographic profiles, (Sioson et al., 2018).

In Africa, a survey done during an outbreak of COVID-19 showed that across all 54 countries included in the analysis, there was an average of 3.10 ICU beds and 0.97 ventilators per 100,000 people and an average of 2.42 total (physician and non-physician) anesthesia providers per 100,000 people(Craig et al., 2020). This showed that it was a big burden to the health care system in all countries and only 5% of the population benefits from the poor-resource ICU settings that are struggling to provide optimal quality care because of numerous challenges health workers face daily, (Craig et al., 2020).

In East Africa especially Kenya, Effective communication remains key in the delivery of care to the most critically ill patients being cared for in the intensive care unit (ICU). Despite the importance of effective communication, providers in the ICU struggle with the delivery of information, often affecting overall care including the relationship with the patient and family members, (Ali et al., 2019).

In Uganda, the majority of ICUs are located in the central region. 55 ICU beds are making up a ratio of 1.3 ICU beds per million people. The ICU beds comprise 1.5 % of the total bed capacity in hospitals. The majority of the ICUs have a nurse-to-patient ratio 2: 1.2; nine during the day and seven at night which poses a great challenge to healthcare workers, (Atumanya et al., 2020).

The study aims to determine the challenges faced by healthcare workers' performance in the intensive care unit of St. Mary's Hospital Lacor, Gulu District.

METHODOLOGY.

Study Design and rationale.

This study employed a descriptive cross-sectional study and it involved quantitative data collection methods. It aimed at obtaining data on a representative sample of health workers at a specific period.

Study Setting and Rationale.

The study was carried out in St. Mary's Hospital Lacor, Gulu District or City. St. Mary's Hospital Lacor, commonly referred to as Lacor Hospital, is a hospital in Gulu District, Northern Uganda. Lacor Hospital is located in Obiya West Village, Bardege Division, Gulu City, Acholi Sub Region, Northern Uganda. This location lies along the Guli-Nimule Road, approximately 6 kilometers by road, West of Gulu Regional Refe1nl Hospital. Gulu, the largest city in Northern Uganda is located

approximately 335 kilometers North of Kampala, the capital city of Uganda and the largest city in the country. St. Mary's Hospital Lacor is a nonprofit private hospital serving approximately 700000 inhabitants of Gulu district and other areas of Northern Uganda, with a bed capacity of 476 beds. In 2017 St. Mary's Hospital had 5147 patients admitted to the Intensive Care Unit (ICU), medical, surgical, pediatric, and obstetrical wards. The hospital offers a range of health services such as HIV counseling, testing and treatment, general gynecological and obstetric surgeries, accident and emergency services, cervical cancer screening, laboratory services, and dental clinics among others. The study area was chosen because of the prevailing problem and accessibility to the researcher.

Study Population.

The study population for this study comprised health workers working in the intensive care units of St. Ma1y's Hospital Lacor, Gulu District.

Sample Size.

The sample size was determined according to UNMEB guidelines 2009 which states appropriate sample size should be not less than 30 respondents. Therefore, the study targeted 30 respondents working in the ICU at St. Mary's Hospital Lacor, Gulu District. This was manageable due to limited time and resources for data collection.

Sampling Procedure.

Data was collected using a convenient sampling method. The researcher offered all potential respondents an opportunity to participate in the study. The researcher approached every health worker who worked in the ICU and was available at the hospital as a sample data collection was done and took 3 days and 10 health workers were interviewed every day.

Inclusion and exclusion criteria.

The study included only the health workers who were officially employed by the hospital; those who were available on duty during the period of study and consented and accepted to respond.

Definition of Variables.

Dependent Variable.

The dependent variable in this study is "Health Worker's Performance in the Intensive Care Units.

Independent variables.

The independent variables include; individual and hospital-related challenges faced by health workers working in the Intensive Care Units.

Research Instruments.

The study used a Self-Administered Questionnaire (SAQ) to collect data from the respondents during data collection. A self-administered questionnaire composed of both closed and open-ended questions. This questionnaire was preferred because all the respondents were able to read and write English independently, the instrument would not consume a lot of time during data collection and its data was easy to analyze in figure format as compared to interview guides or focus group discussion.

Data Collection Procedure.

The research questionnaire was pretested based on the research guidelines. The tool was pre- tested by Lubaga Hospital as a way of ensuring its validity and reliability. After obtaining a letter from the principal of Lubaga School of Nursing and Midwifery, the researcher went ahead to ask permission from the administration of St. Mary's Hospital Lacor, and explained the purpose of the study, then after being given tl1e pem1ission, the researcher went ahead to collect data from all the health workers. This took place 3 days, thus enabling the researcher to collect data in a short time and minimize expenses.

Data Management.

Data that was collected from the field was checked for completeness and kept under key and lock to ensure that no unauthorized person accessed it apart from the researcher. Data was entered into Epidata software and exported to SPSS software version 20.0 where it was analyzed.

Data Analysis.

The collected data was analyzed and conclusions were made. The response from the participants was obtained; every single questionnaire was checked entirely for legibility, mistakes, and any missing data and ensured privacy. Information that was not clear was retrieved from the participants. The data was further analyzed using statistical computer packages such as EPIDATA version 3.1, SPSS version 20.0, Microsoft Excel, graphs, tables, pie charts, and percentages derived with explanations.

Data Presentation.

Analyzed data was presented in tables, graphs, and pie charts reflecting the frequencies and percentages.

Ethical Consideration.

A complete research proposal was submitted to the supervisor for approval. Clearance was made by the research committee and then a letter of introduction was issued by the Principal of St. Michael Lubaga Hospital Training Schools which was presented at St. Mary's Hospital Lacor, Gulu District seeking for permission to conduct this study. All participants were required to sign informed consent forms before answering the questionnaire. The objectives, nature, and significance of

the research study were explained to all participants with an emphasis on voluntary participation and the right to pull out at any given time from the study without being penalized. Participants' confidentiality was maintained, they took part in the study anonymously, and no names were put on the questionnaire.

RESULTS:

Description of the sample Table 1: Socio-demographic characteristics n=30

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Variable	Category	Frequency (1)	Percentage (%)
Gender	Male	9	30
	Female	21	70
Age	21-29 years	8	26.7
	30-39 years	11	36.7
	40-49 years	6	20
	50years and above	5	16.6
Profession qualification	Enrollment	6	20
	Diploma	17	56.7
	Degree	4	13.3
	Master's degree	3	10
Working experience	< year	2	6.7
	year	6	20
	1-5 years	13	43.3
	More than 5 years	9	30

Table 1 shows that 21(70%) of the respondents were females while only 9(30%) of the respondents were males.

About age, a third of 11(36.7%) of the respondents were in age brackets of 30-39 years whereas less than a quarter of 5(16.6%) of the respondents were in age brackets of 50 years and above.

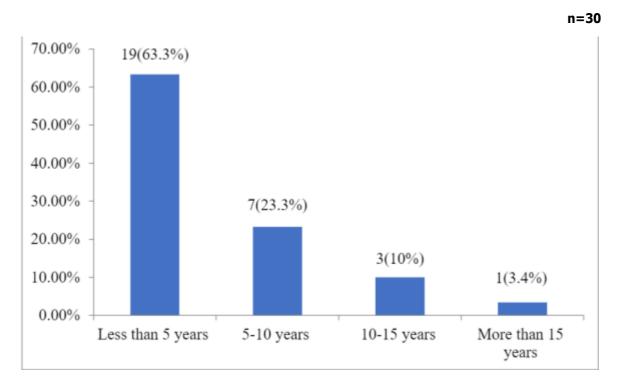
Regarding the level of professional

qualification, more than half 17(56.7%) of the respondents had a diploma level whereas only 3(10%) of the respondents had a master's degree.

Concerning working experience, most 13(43.3%) of the respondents had spent at the hospital 1-5 years while the least 2(6.7%) of the respondents had less than 1 year at the hospital.

Individual-related challenges faced by health workers in the ICU.

Figure 1: Showing responses about time working in the intensive care unit



From Figure 1 19(63.3%) of the respondents mentioned they had spent less than 5 years working in intensive care units whereas the least 1(3.4%) of the respondents mentioned that had worked for more than 15 years in intensive care units.

Table 2: Showing responses on whether respondents had had additional related training working in the ICU and where it was acquired from

n=30

Variable	Category	Frequency (f)	Percentage (%)
Had additional related	Yes	28	93.3
training working in the	No	2	6.7
ICU			
Where additional training		N=28	
was acquired from	Within the hospital	24	85.7
	Outside the hospital	4	13.3

Table 2 shows that the majority 28(93.3%) of the respondents said that they had additional training about working in the ICU, while the minority 2(6.7%) of the respondents said that they did not have any.

In addition, among those who had additional training in the ICU, the majority 24(85.7%) of the respondents mentioned that they acquired the training within the hospital while the minority 4(13.3%) of the respondents mentioned that they acquired the training outside the facility.

Figure 2: Showing responses to whether respondents feel happy working in the intensive care unit.

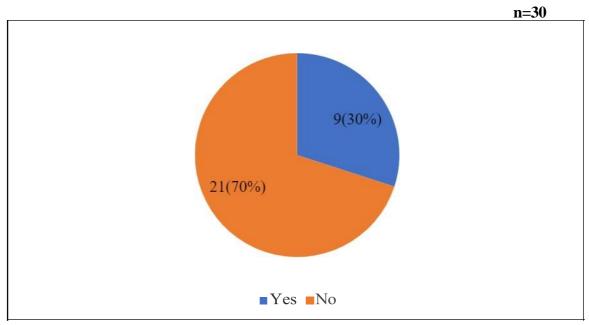
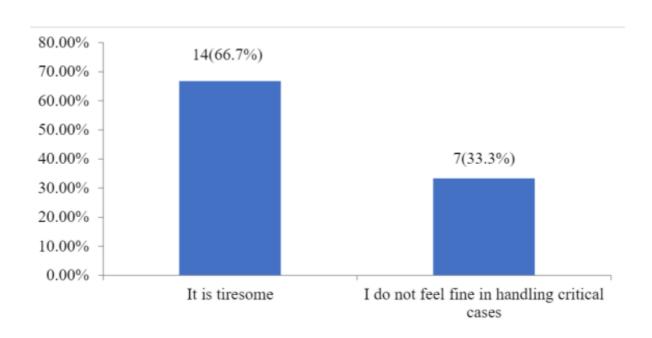


Figure 2 shows that 21(70%) of the respondents mentioned that they do not feel happy working in ICU whereas only 9(30%) of the respondents mentioned that they feel happy working in ICU.

Figure 3; Showing responses to why the respondents do not feel happy working in the ICU. n=21



From Figure 3, most 14(66.7%) of the respondents said that they do not feel happy working in ICU because it is tiresome whereas only 7(33.3%) of the respondents said that they do not feel fine in handling critical cases.

Table 3: Showing responses on whether respondents experience some family-related issues that affect effective service delivery in the ICU and reasons for not experiencing them

n=30

Variable	Category		Frequency (t)	Percentage (%)
Experiences some family	Yes		19	63.3
related issues that affect	No		11	36.7
effective service delivery in the ICU				
the ICU				
reasons for not experiencing			N=11	
some family-related issues that	Family has	no	11	100
affect effective service	concern about	my		
delivery in the ICU	work			

Table 3 shows that 19(63.3%) of the respondents mentioned that they experience some family-related issues that affect effective service delivery in the ICU while only 11(36.7%) of the respondents mentioned that they do not experience some family-related issues that affect effective service delivery in the ICU.

In addition, for those who did not experience some family-related issues that affect effective service delivery in the ICU all 11(100%) of the respondents mentioned that it was because Family had no concern about their work.

Figure 4: Showing responses about other individual-related challenges always encountered while executing duties in the intensive care unit. n=30

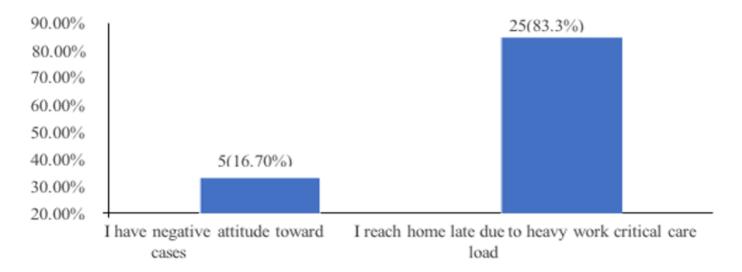


Figure 4, shows that the majority of 25(83.3%) of the respondents mentioned that they reach home late due to a heavy workload while the minority 5(16.7%) mentioned that they have a challenging negative attitude toward critical care cases.

Hospital-related challenges faced by health workers in the ICU

Figure 5: Number of healthcare workers allocated in the intensive care unit. N=30

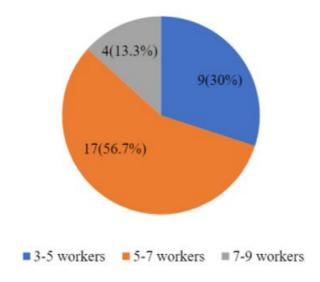


Figure 5 shows that more than half 17(56.7%) of the respondents said that there are 5-7 health workers allocated in ICU while only 4(13.5%) of the respondents said that there are 7-9 health workers allocated in ICU.

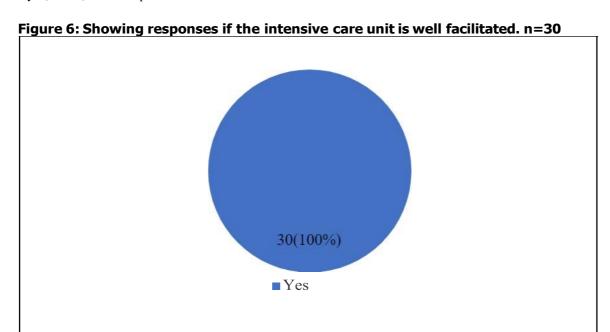


Figure 6 shows that all 30(100%) of the respondents mentioned that ICU is well facilitated.

Figure 7: Showing responses whether the hospital ever rendered any additional related training to facilitate performance

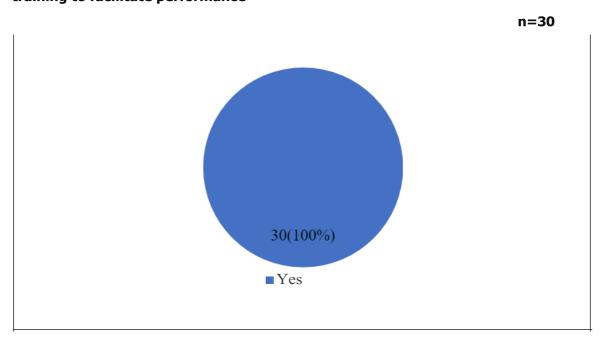


Figure 7 shows that all 30(100%) of the respondents mentioned that the hospital provided additional training to facilitate performance in the ICU.

Figure 8: Showing responses whether respondents offered accommodation within the facility. n=30

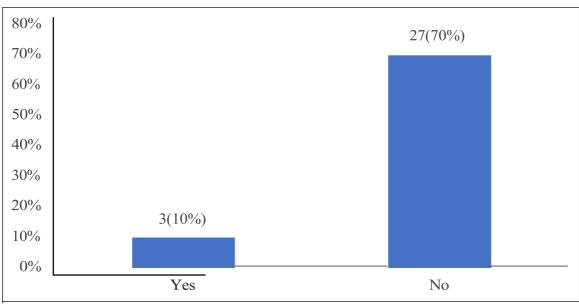


Figure 8 shows that the majority 27(90%) of the respondents said that they were not offered accommodation at the facility whereas the minority 3(10%) of the respondents said that they were offered accommodation at the facility.

Variable	Category	Frequency (f)	Percentage (%)
Distance covered		N=27	
traveling to the	Less than a kilometer	7	26
Facility	1-5 kilometers	20	74
Hospital provides	Yes	7	23.3
motivation to health workers working in	No	23	76.7
the ICU			
Kind of motivation		N=7	
Provided	Working monthly allowances	3	42.6
	Transport allowances	4	57.1
Cooperation among	Yes	27	90
health workers111	No	3	10
ICU			
Working conditions	Pleasing	8	26.7
in the ICU	Somehow pleasing	5	16.7
	Not pleasing	17	56.6
Challenges always	Heavy workload	24	80
encountered while	Lack of adequate leaves	6	20
executing duties m the intensive care			
unit			

Table 4 shows that most 20(74%) of the respondents mentioned that the distance they cover to reach the facility is 1-5km while the least 7(26%) of the respondents mentioned that they travel less than a kilometer.

In addition, the majority 23(76.7%) of the respondents said that the hospital does not offer any motivation to health workers working in the ICU while the minority 7(23.3%) of the respondents said that the hospital offers motivation to health workers working in the ICU.

Among 7(23.3%) of the respondents said that the hospital offers motivation to health workers working in the ICU, more than half 4(57.1%) of the respondents mentioned that they are offered transport allowances whereas only 3(42.6%) of the respondents mentioned that they are offered

working monthly allowances.

Furthermore, the majority 27(90%) of the respondents mentioned that health workers in the ICU always cooperate while executing their duties while the minority 3(10%) of the respondents mentioned that health workers in the ICU do not always cooperate while executing their duties.

Regarding working conditions in the ICU, more than half 17(56.6%) of the respondents mentioned that the conditions were not pleasing while only 5(16.7%) of the respondents mentioned that they were pleasing.

Lastly, the majority 24(80%) of the respondents mentioned that they faced the challenge of heavy workload during duties while the minority 6(20%) of the respondents mentioned that they lacked adequate hospital leave.

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DISCUSSION.

Social demographic data of the respondents.

According to the study results, most 21(70%) of the respondents were females. This gender distribution may have implications for understanding the challenges faced by healthcare workers in the ICU, as gender can impact factors such as workload, stress, and work-life balance.

In addition, the study findings showed that almost a third of 11(36.7%) of the respondents were in the age brackets of 30-39 years. This suggests that the majority of healthcare workers in the ICU at St. Mary's Hospital Lacor are relatively young, which may have implications for their experience, coping mechanisms, and ability to handle the challenges they face in the ICU.

Furthermore, more than half 17(56.7%) of the respondents had a diploma in qualification. This suggests that the majority of healthcare workers in the ICU may have lower levels of formal education, which may impact their knowledge, skills, and confidence in dealing with complex cases in the ICU.

On the other hand, most 13(43.3%) of the respondents had spent at the hospital 1-5 years in practice. This suggests that the healthcare workers in the ICU at St. Mary's Hospital Lacor may have relatively limited experience, which may impact their ability to handle challenging situations, make quick decisions, and manage the workload in the ICU.

The above findings from the demographic data are in agreement with (Shoorideh et al., 2015)who reported that there was a positive statistical correlation between intensive care unit nurses' age, their work experience, and the fraction of nurses' number to number of intensive care unit beds with their moral distress and burnout. However, there was no correlation between gender, marriage status, educational degree work shift, and moral distress.

Individual-related challenges faced by health workers in the ICU.

From the study findings, 19(63.3%) of the respondents mentioned they had spent less than 5 years working in the intensive care unit. This suggests that a significant portion of the healthcare workers in the ICU may have relatively limited experience, which could impact their ability to cope with the challenges of working in a high-stress environment like the ICU. This finding is not in line with Guttormson et al., (2022) in the USA, who showed that 62% of the respondents mentioned inadequate working experience in the

intensive care unit was one of the challenges faced while working in ICU.

The findings also showed that the majority 28(93.3%) of the respondents said that they had additional training about working in the ICU. Among those who had additional training in the ICU, the majority 24(85.7%) of the respondents mentioned that they acquired the training within the hospital. This suggests that the hospital provides training opportunities for its ICU staff, which may be seen as a positive factor in addressing challenges related to knowledge and skills in ICU care. This finding contradicts Willemse et al., (2020) in the Netherlands who reported that 64% of the respondents pointed out that inadequate training and orientation related to intensive care unit duties among individual health workers was one of the challenges encountered during service delivery.

In addition, results showed that 21(70%) of the respondents mentioned that they do not feel happy working in the ICU. This suggests that a considerable number of healthcare workers in the ICU may experience low job satisfaction, which could impact their motivation, engagement, and performance in the ICU. This finding is not in agreement with Hancock et al., (2020) in Canada who showed that Healthcare professionals reported negative emotional reactions such as anger, frustration, anxiety, fear, defeat, and demoralization in the healthcare provider.

Furthermore, findings showed that most 14(66.7%) of the respondents said that they do not feel happy working in ICU because it is tiresome. This suggests that the demanding nature of ICU work, including long working hours and high workload, may contribute to the challenges faced by healthcare workers and their job satisfaction. This finding is in line with Moreno et al., (2022) in Spain, who revealed that Intensive Care Unit (ICU) healthcare workers are likely to suffer from burnout due to the high job demands they may face, Healthcare workers in ICU encounter job demands such as long shifts, life or death issues, crucial decision-making.

On the other hand, the finding showed that 19(63.3%) of the respondents mentioned that they experience some family-related issues that affect effective service delivery in the ICU. This suggests that family-related concerns, such as caregiving responsibilities or lack of support, may impact the performance and well-being of healthcare workers in the ICU. This finding is in agreement with Guttormson et al., (2022) in the USA, who showed that 38% of the respondents raised social challenges such as family problems that interfered with effective service delivery in the intensive care units. For that case, stated that health workers experiencing social disturbance related to domestic issues may not fully execute their duties effectively in the intensive critical care units thus, necessitating them to take a rest mindset.

Hospital-related challenges faced by health workers in the ICU.

According to the study findings, more than half 17(56.7%) of the respondents said that there are 5-7 health workers allocated in ICU. This information highlights the issue of staffing levels in the ICU, with a significant proportion of respondents indicating that the number of health workers may not be adequate to meet the demands of the ICU workload. This finding is in line with Deressa et al., (2021) in Ethiopia who showed that health workers, 67% of the respondents highlighted inadequate human resources to deal with the overwhelming intensive care units.

Furthermore, findings showed that all 30(100%) of the respondents mentioned that the ICU is well facilitated and that the hospital provided additional training to facilitate perfo1111ance in the ICU. This indicates that the respondents perceive the availability of adequate facilities and training opportunities as positive aspects of their work environment. This finding contradicts Willemse et al., (2020) in the Netherlands who reported that 64% of the respondents pointed out that inadequate training and orientation related to intensive care unit duties among individual health workers was one of the challenges encountered during service delivery.

In addition, majority 27(90%) of the respondents said that they were not offered accommodation at the facility. This suggests that a significant proportion of health workers in the ICU may have to commute from outside the hospital, which could impact their work-life balance and overall job satisfaction. This finding is in line with Mousazadeh et al., (2019) in Pakistan who revealed that lack of accommodation for health workers working in the intensive care units was some of the challenges that were reported by 76% of the health workers. It should be noted that health workers working in the critical wards needed to stay within the hospital and once they are not offered accommodation within the hospital, this challenges their effective service delivery due to delays in reaching the facilities during the s1gn-111.

In addition, the majority 23(76.7%) of the respondents said that the hospital does not offer any motivation to health workers working in the ICU. However, among 7(23.3%) of the respondents who said that the hospital offers motivation to health workers working in the ICU, more than half 4(57.1%) of the respondents mentioned that they are offered transport allowances. This indicates that there may be room for improvement in terms of providing incentives and motivation to health workers in the ICU, which could contribute to their job satisfaction and

performance. This finding is in agreement with Netshisaulu et al., (2019) in South Africa who revealed that lack of motivation for overworked health workers in the intensive care units was one of the challenges that the health workers experienced when executing their services

Furthermore, majority 27(90%) of the respondents mentioned that health workers in the ICU always cooperate while executing their duties. This suggests that while there may be good cooperation among health workers, the overall working conditions may need improvement to ensure a conducive and satisfactory work environment. This finding is not in line with Sigurdson et al., (2020) who showed that lack of collaboration and cooperation among the ICU workers was one of the highly felt challenges that devastated the execution of their duties.

On the other hand, about working conditions in the ICU, more than half 17(56.6%) of the respondents mentioned that the conditions were not pleasing. This indicated that they were not satisfied with their work. This finding is in agreement with Andersson et al., (2022) in

Sweden observed that inadequate patient beds in the intensive care units, lack of running water, and too much workload were among the challenges that were encountered by the health workers since it was not pleasing.

Lastly, findings showed that the majority 24(80%) of the respondents mentioned that they faced the challenge of a heavy workload during duties. This indicates that workload and leave management may be areas of concern for health workers in the ICU, and addressing these challenges could potentially improve their job satisfaction and wellbeing. This finding is in line with Netshisaulu et al., (2019) in South Africa who showed that Participants experienced challenges related to the provision of suboptimal patient care, Nurses employed in the hospital, especially in the ICU, struggle with different issues such as workload, which may affect their job satisfaction, and they are mostly dissatisfied with their job.

CONCLUSION.

The study was about challenges faced by healthcare workers performance in the intensive care unit of St. Mary's Hospital Lacor, Gulu District. The findings highlight the gender distribution, age, level of professional qualification, and working experience of the respondents, which may have implications for their performance and ability to cope with the challenges they face in the ICU setting. The findings related to individual challenges faced by healthcare workers in the ICU highlight the experiences and perceptions of the respondents regarding work experience, additional training, job

satisfaction, family-related issues, and workload. The findings related to hospital-related challenges highlight the importance of addressing issues such as staffing levels, facilities, training opportunities, accommodation, motivation and incentives, cooperation among health workers, working conditions, workload, and leave management to ensure a supportive and conducive work environment for health workers in the ICU.

RECOMMENDATION.

To the ministry of health.

The ministry should ensure the provision of adequate resources, support, and incentives which could potentially improve job satisfaction, performance, and overall well-being of health workers, leading to better patient care outcomes in

LIST OF ABBREVIATIONS AND ACRONYMS

AACN American Association of C1itical-Care Nurses'

HCW Health Care Workers ICU Intensive Care Unit MoH Ministry of Health

PPE Personal Protective Equipment
SAQ Self-Administered Questionnaire
SPSS Statistical Package for Social Sciences

UNMEB Uganda Nurses and Midwives Examinations

Board

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the ICU setting.

To the hospital management.

The hospital should ensure that they monitor the performance of health workers in the ICU, which will enable them to identify challenges faced during service delivery.

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