#### EXPLORING CHALLENGES FACED BY HEALTH WORKERS DURING PREVENTION OF INFECTIOUS DISEASES AT KABALE REGIONAL REFERRAL HOSPITAL A CROSS-SECTIONAL STUDY.

#### Page | 1

Charity Asiimwe\*, Patience Ddumba St. Michael Lubaga hospital training schools

# Abstract

#### Background

Infectious diseases continue to be a global public health concern, affecting millions of individuals each year. HCWs are still challenged while working to prevent contagious diseases, thus, this study seeks to identify the challenges faced by health workers during preventing infectious diseases in Kabale Regional Referral Hospital.

#### Methodology

Employing a cross-sectional study design, the research diligently collected data through structured questionnaires distributed among 29 participants, resulting in an impressive 96.7% response rate.

#### Results

(75.9%) of HCWs possess a minimum of a nursing certificate, and a significant majority (86.2%) are enrolled nurses, 82.8% of respondents encountered obstacles in their IPC endeavors.

Among the identified challenges, limited access to personal protective equipment (44.8%) emerges as a predominant issue, accompanied by concerns such as inadequate training programs (13.8%) and suboptimal adherence to established protocols (31%). Despite HCWs exhibiting commendable knowledge (86.2%) and practices in infectious disease prevention, the study underscores critical challenges, including insufficient resources, infrastructure limitations, and perceived inadequacies in leadership effectiveness, with 37.9% of respondents expressing dissatisfaction with the hospital's leadership in addressing infectious disease prevention challenges.

#### Conclusion

The prevalence of challenges in Infection Prevention and Control (IPC) is evident, with more than half of respondents acknowledging the presence of obstacles. Key challenges identified include inadequate training programs, limited access to personal protective equipment (PPE), poor adherence to established protocols, and insufficient awareness about infectious diseases.

#### Recommendation

Hospitals should prioritize ensuring a consistent supply of PPE and enhance accessibility to handwashing facilities and sanitizers.

Communication channels regarding IPC guidelines should be strengthened through regular updates, training sessions, and feedback mechanisms.

Leadership training programs are also needed to engage with healthcare workers, address concerns, and foster a collaborative approach to overcoming challenges in infectious disease prevention.

Keywords: Challenges, Health Workers, Infection Prevention, Infectious Diseases Submitted: 2024-05-21 Accepted: 2024-08-09

Corresponding Author: Charity Asiimwe Email: <u>charityasiimwe21@gmail.com</u> St. Michael Lubaga hospital training schools

### Background

Infectious disease prevention refers to any guidelines, procedures, and actions aimed at preventing or reducing the risk of infectious disease transmission in healthcare institutions. An efficient hospital contagious disease prevention and control program enhances patient safety and quality of treatment while reducing the negative socioeconomic and psychological impact of infectious illnesses on patients and healthcare systems (Zenbaba, 2020).

Infectious disease prevention and control in healthcare institutions is crucial for minimizing contagious disease spread to healthcare personnel and patients. The World Health Organization (WHO) identified a variety of techniques to limit the risk of infectious disease transmission in healthcare settings, including isolation of suspected cases, routine precautions for all patients, and enhanced precautions for suspected during the COVID-19 pandemic (Moodley et al., 2021). To restrict transmission in healthcare institutions, administrative controls should be introduced, as well as engineering and environmental measures. The role of health workers in the successful execution of infection prevention and control measures cannot be overstated (Haque, et al., 2020).

Efficient infection prevention and control (IPC) policies are fundamental needs for all healthcare institutions to decrease morbidity and mortality associated with microbial agents and thereby achieve outstanding patient outcomes. Healthcare-related infectious diseases, also known as nosocomial infectious diseases, are acquired during healthcare delivery from patients or healthcare personnel or through contaminated equipment, instruments, hands, bed linen, or air droplets (Alhassan, Kuugbee, & Der, 2021).

Infectious diseases continue to be a global public health concern, affecting millions of individuals each year. With the rising prevalence of treatment resistance, ID control efforts have become even more difficult, leading to a larger focus on infection prevention control (IPC). Institutional environments, especially healthcare institutions, have been recognized as being particularly vulnerable to infectious disease transmission. Nosocomial transmission of infectious diseases with high transmission among healthcare workers (HCWs) has been recorded in many countries, notably in low- and middle-income nations. This increased risk of ID transmission at health facilities puts HCWs and other patients at high risk of infection, posing a severe hazard, especially when drug-resistant (Lowe, et al., 2021).

Transmission between HCWs relates to overcrowding, a lack of isolation room facilities, and environmental pollution, which is likely worsened by some HCWs' insufficient infection prevention knowledge and practices. South America's health systems are especially susceptible due to their limited response capabilities. In Venezuela, due to its present economic and health problems, is one of the most vulnerable countries in the area. Determining HCWs' KAPs early might guide baseline training in Venezuela, allowing for the development of measures focused on reducing HCW unknowns and misbehavior (Mendoza, et al., 2021).

The East African Community (EAC) is made up of seven nations, including Uganda, and has a population of over 177 million people. In those nations, infectious diseases were responsible for 40% of fatalities in 2015 (Kraef, et al., 2020). In the past, the East African Community region has had several infectious illness epidemics. Ebola, Rift Valley, Marburg, and Crimean Congo Hemorrhagic fevers, Cholera, Polio, Hepatitis A and B, and other diseases are among them. Six of the ten are zoonoses, or illnesses spread between animals and humans. Partner States must always be prepared to avoid epidemics that threaten public health, economic stability, and the lives and livelihoods of the EAC area despite unforeseen challenges (Opio, 2016). Many policies exist on paper, but implementation and healthcare are lacking, and regional and subnational disparities are significant. To secure future IPC policies and implementation improvements, regional and national policymakers, non-governmental organizations, and other stakeholders must step up their efforts (Opollo, et al., 2021).

Unlike in developed countries where the prevalence of infectious diseases like HIV and TB is low, the risk for medical staff to occupationally acquire a serious disease is usually high and is a major concern, especially for the medical institutions in Uganda. The prevalence of HIV in Uganda is 18.8% among ante-natal clinic attendees (MoH, 2015) and 56% among TB patients (MoH, 2018). Uganda has an alarmingly high TB burden reporting 12625 TB patients in 2010 with a notification rate of 589 cases per 100,000 population, one of the highest in the world. The potential to transmit TB, for example, in hospitals is high as a confirmed high incidence of TB poses a substantially high risk for transmission (Ojulong, Mitonga, & Lipinge, 2016).

Interventions have been employed to overcome the challenges faced, such as motivation of the health workers, ensuring compliance with the standard operating procedures, and provision of PPE, among others. However, HCWs are still challenged while working to prevent contagious diseases (Zheng, et al., 2020). Thus, this study seeks to identify the challenges faced by health workers during preventing infectious diseases in Kabale Regional Referral Hospital.

#### Methodology

#### Research Design and rationale for its choice.

The research design for this study was a cross-sectional study design to investigate the challenges faced by Health Care Workers (HCWs) in preventing infectious diseases. The aim was to comprehensively assess the existing conditions by gathering numerical data. The choice of a quantitative design facilitated the quantification and statistical analysis of the data, allowing for a systematic evaluation of the identified variables.

#### **Research setting**

The research was conducted in Kabale Regional Referral Hospital in Kabale District which has a total bed capacity of 280. Kabale Regional Referral Hospital offers services such as outpatient consultations, secondary medical, surgical, and pediatrics care, HIV care and treatment, infectious diseases screening and treatment, maternity care services, neonatal intensive care unity, Gynecological and Sexually Transmitted Infections services, antenatal and postnatal care and immunization services (Maternal and Child Health), family planning services, Laboratory services, and

Page | 2

radiological services. Eye, Ear, Nose and Throat, Dental, Orthopedics, Physiotherapy, Isolation, Store and Administration Wing. The hospital has 62% of the required staff consisting of medical officers, Allied health professionals, Nurses and Midwives, Administrators, and support staff.

Page | 3

Kabale District is located in the Western Region of Uganda. The Kabale District is bounded to the north by Rukungiri District, to the north-east by Rukiga District, to the east and south by

Rwanda, to the west by Rubanda District, and the north-west by Kanungu District. By road, Kabale lies about 143 kilometers (89 miles) southwest of Mbarara, Uganda's main metropolitan center in the Western Region. Kabale is about 410 km (255 miles) by road southwest of Kampala, Uganda's capital. Kabale is located around 25 km (16 miles) north of Katuna on the Rwandan border (Google, 2020).

## **Study population**

The study population comprised Health Care Workers who were the primary respondents regarding the challenges faced in preventing infectious diseases. These individuals were selected based on their direct or indirect involvement, as it was anticipated that they would offer pertinent quantitative information crucial to the study.

### Sample and sampling process

Probability sampling techniques were undertaken by randomly selecting health workers who were present in hospital facilities until the allocated sample size was reached in Kabale Regional Referral Hospital was approached for enrolment.

### Sample size determination

By using the Uganda Nurses and Midwives table of sample size determination, a total compilation of 30 participants (health workers) was selected for the study.

# **Inclusion criteria**

This study only included medical staff who were orally consented and had been diagnosed with an infectious disease or taking care of a patient with an infectious disease in Kabale Regional Referral Hospital.

#### **Definition of Variables**

#### **Dependent variables**

Prevention of infectious diseases by health workers in Kabale Regional Referral Hospital

### **Independent Variable**

Knowledge of the Health Care Workers attending to patients in IPC centers; education level, training, refresher courses, on-job training

Attitude of the Health Care Workers; negative, and positive

Practices and procedures in IPC; uses of respirators, use of PPE

Challenges faced by healthcare workers during the prevention of infectious diseases

### Data collection tool and procedure:

A structured questionnaire and secondary data were used for collecting data. Two research assistants at the level of senior six who know the local language were identified and trained before administering the questionnaires. The response of each respondent was filled in the questionnaires by the researcher and two research assistants. The interview process with each respondent took about 10 minutes to 15 minutes. This method was used because it allows for accurate recording of responses from both literate and illiterate respondents.

### Data management

Data from questionnaires was checked for completeness and accuracy before being entered into the computer for final analysis.

### **Data Analysis**

The data was analyzed using Statistical Package for the Social Science (SPSS) and the analyzed data was presented in the form of tables, bar graphs, and pie charts. A correlational analysis was run to check for correlation of the variables.

### **Ethical Consideration**

Ethical approval was sought from the ethics and research committee – Lubaga Hospital Training Schools.

Ethics clearance and introduction letter were obtained from the Head of Department Nursing Science- Lubaga Hospital Training Schools, which was then submitted to Kabale Regional Referral Hospital Administration for seeking their permission. Consequently, it was presented to the Principal Nursing Officer for subsequent permission.

Page | 4

Prior oral consent was obtained from participants and key informants who were informed that their right to participate in the research study or not was respected. The data collected was kept in a cupboard under a key and locked only accessed by the researcher likewise in a computer with a personal password.

#### RESULTS

#### Social Demographic Characteristics of the **Study Population.**

The study collected data on the social characteristics of participants who actively participated. Out of the 30 questionnaires distributed, 29 were completed, resulting in a 96.7% completion rate of the total sample size.

#### **Social Demographic Characteristics**

Table 1 shows; A total of 29 participants completed the questionnaire. Majority of the participants (58.6%) were between the ages of 20 and 25 years, and 31.0% were between the ages of 26 -30 years, whereas a minimal percentage of (6.9%) and (3.4%) were between the ages of 31-35 years and above 36 years respectively. Men accounted for (24.1%) as compared to women with (75.9%) of the total number of participants.

Majority of the participants (75.9%) had at least a certificate in nursing, and 17.2% had a high diploma. In addition, only 6.9% had a Bachelor's Degree as their highest level of education while none of the respondents had either a Masters or PHD.

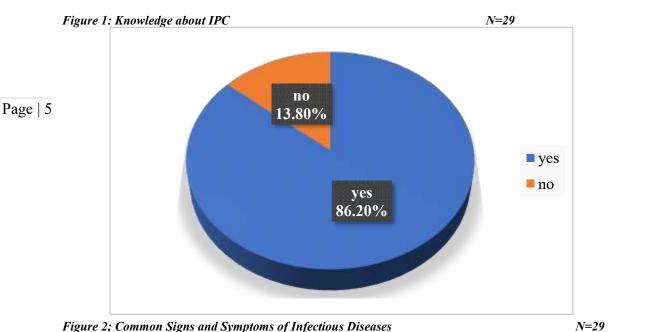
Another finding regarding the social demographic characteristics revealed that most of the respondents were enrolled nurses (86.2%), this was followed by those who were registered (10.3%) while there was only 1(3.4%)Pediatric nurse who participated in the study.

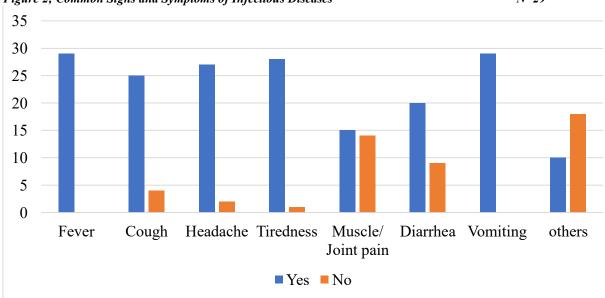
Regarding infection prevention and control, (96.6%) of the respondents agreed that they were trained in IPC, and all (100%) of them showed that they could identify the different infectious diseases. in addition, (86.2%) of the respondents said that they had taken part in IPC as compared to (13.8%)of their compatriots who had not taken part in IPC programs.

Characteristic	Number	Percent (%)
Age		
20-25 years	17	58.6
26 - 30 years	9	31.0
31-35 years	2	6.9
> 36 years	1	3.4
Gender		
Male	7	24.1
Female	22	75.9
Highest educational qualification		
Certificate	22	75.9
Diploma	5	17.2
Bachelor's Degree	2	6.9
Cadre		
Enrolled nurse	25	86.2
Registered nurse	3	10.3
Paediatric nurse	1	3.4
Trained in IPC		
Yes	28	96.6
No	1	3.4
Can you identify the different infectious diseases?		
Yes	29	100.0
Have you taken part in IPC?		
Yes	25	86.2
No	4	13.8

Source: Findings, 2023

SJ Nursing and Midwifery Africa Vol. 1 No. 9 (2024): September 2024 Issue <u>https://doi.org/10.51168/p814w005</u> Original Article





# Knowledge of Health care workers on the prevention of infectious diseases.

Figure 1 shows; more than two-thirds of the participants (86.2%) possessed sufficient knowledge regarding infectious disease control and prevention. The majority had awareness about the responsible causes for infectious disease control and prevention and the effectiveness of proper management in eliminating it.

Figure 2 shows; survey results provide a comprehensive overview of the prevalence of common signs and symptoms among the respondents. Fever, a classic indicator of infectious diseases, was reported by all 29 respondents. Cough was experienced by 25 individuals, while 4 respondents did not report this symptom.

Headache was a prevalent symptom, with 27 respondents confirming its presence, and only 2 reporting its absence. Tiredness, another commonly associated symptom, was reported by 28 respondents, with only 1 respondent not experiencing fatigue.

Muscle/joint pain showed a relatively balanced distribution, with 15 respondents affirming its presence and 14 indicating its absence. Diarrhea, a gastrointestinal symptom, was reported by 20 respondents, while 9 respondents did not experience it.

Page | 6

Vomiting was reported by all 29 respondents, indicating a unanimous experience of this symptom. Additionally, 10 respondents reported experiencing other symptoms not explicitly listed, while 18 respondents did not report any additional symptoms. On the other hand, in figure 3, all the respondents 29(100%) showed that they had taken training in Infectious disease control and prevention.

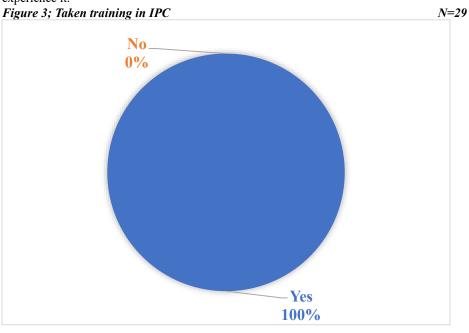


Table 2; Practices of HCW during IPC			N = 29	
Statement		Frequency	Percentage (%)	
Va ave have to have dia noticente	Yes	21	72.4	
Know how to handle patients	No	8	27.6	
Standard Operating Procedures in IPC	Yes	26	89.7	
	No	3	10.3	
Complaint to SOPs during IPC	Yes	26	89.7	
	No	3	10.3	
	Yes	24	82.8	
Received Training about IPC	No	5	17.2	
Train and and all and IDC	Yes	24	82.8	
Train patients about IPC	No	5	17.2	
	Yes	28	96.6	
Several Challenges involved	No	1	3.4	

#### **Practices of Health Care Workers towards prevention of Infectious Diseases.**

The table 2 findings reveal that 72.4% of healthcare workers (HCWs) demonstrated a positive understanding of handling patients during the prevention of infectious diseases. Additionally, a significant majority of respondents, 89.7%,

affirmed the existence of standard operating procedures (SOPs) to be adhered to during the prevention of infectious diseases. Only a minority, 10.3%, indicated the absence of SOPs and non-compliance among HCWs with the established SOPs.

The findings further revealed that respondents received training in IPC with more than 80% (82.8%) of the

# SJ Nursing and Midwiferv Africa Vol. 1 No. 9 (2024): September 2024 Issue https://doi.org/10.51168/p814w005 **Original Article**

respondents showing that they had received training. These respondents also showed that they passed on the training to the patients with a similar number of respondents 82.8% of the HCWs showing that they passed on the training learned to the patients.

Page | 7 Furthermore, a significant number of the respondents 96.6% of the respondents showed that several challenges were faced during the prevention of infectious diseases at Kabale Regional referral hospital. The responses concerning the challenges and possible solutions were addressed and collected in an explanatory format.

In conclusion, the study found that there were good practices employed during the prevention of infectious diseases at Kabale Regional Referral Hospital with more that 60% of the response supporting that there were SOPs and that HCWs were compliant to the set SOPs.

N = 29

#### Table 3: Are there any challenges you face in IPC?

Are there any challenges you face in IPC?	Frequency	Percent (%)
yes	24	82.8
no	5	17.2
Total	29	100

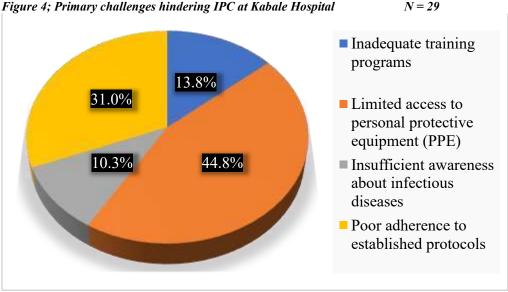


Figure 4; Primary challenges hindering IPC at Kabale Hospital

#### Challenges faced by health workers in the prevention of infectious diseases.

The data obtained from the table 3 indicates that (24) 82.8% of the respondents reported facing challenges in IPC, while (5) 17.2% indicated otherwise. This suggests a significant prevalence of challenges in the domain of interprocess communication.

#### In your opinion, what is the primary challenge effective hindering infectious disease prevention at Kabale Regional Referral **Hospital?**

The data in figure 4 reveals a deep understanding of the challenges faced by Kabale Regional Referral Hospital in infectious disease prevention. Among the respondents, 13.8% identified inadequate training programs as a significant hurdle, while 44.8% highlighted limited access to personal protective equipment (PPE). Poor adherence to established protocols was reported by 31% of respondents, and 10.3% identified insufficient awareness about infectious diseases as a primary challenge. This supports the lack of resources being the major challenge faced.

#### How would you rate the communication channels regarding infectious disease guidelines within the hospital?

The results in table 4 indicate varying perceptions regarding the effectiveness of communication channels for IPC guidelines within the hospital. Among the respondents, (2) 6.9% rated the communication channels as Excellent, while

Page |

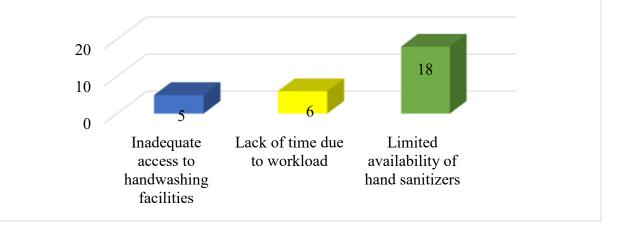
(19) 65.5% considered them Good. Additionally, (4) 13.8% reported an Average rating, and an equal proportion, (4)13.8%, rated the communication channels as Poor.

N = 29

	Table 4; Effectiveness of communication channels regarding IPC guidelines		guidelines N	= 29
8		Frequency	Percent (%)	
0	Excellent	2	6.9	
	Good	19	65.5	
	Average	4	13.8	
	Poor	4	13.8	







#### What, in your experience, is the major obstacle to maintaining consistent hand hygiene practices among health workers?

The survey results in figure 5 indicate that health workers identified three main factors contributing to the lack of compliance with infectious disease control measures. Inadequate supervision was cited by (7) 24.1% of respondents, furthermore, (6) 20.7% of respondents pointed to insufficient motivation and recognition as a significant factor. The most prevalent factor, reported by (16) 55.2% of respondents, was limited resources.

#### What, in your experience, is the major obstacle to maintaining consistent hand hygiene practices among health workers?

Figure 6 shows; inadequate access to handwashing facilities was identified by (5) 17.2% of respondents, emphasizing the importance of infrastructure and accessibility for effective hand hygiene. Lack of time due to workload emerged as a significant obstacle, with (6) 20.7% of respondents citing this factor. The most prevalent obstacle, reported by (18) 62.1% of respondents, was the limited availability of hand sanitizers. This result indicates a potential gap in the provision of essential hand hygiene resources within healthcare settings.

#### To what extent do you believe the hospital's leadership effectively addresses and resolves challenges related to infectious disease prevention?

Table 5 shows: A majority of respondents, constituting (15) 51.7%, perceive the leadership as Moderately Effective. A notable portion of respondents, (3) 10.3%, expressed a Neutral stance on the effectiveness of hospital leadership. Conversely, (11) 37.9% of respondents deemed hospital leadership as Ineffective in addressing challenges related to infectious disease prevention.

# SJ Nursing and Midwifery Africa Vol. 1 No. 9 (2024): September 2024 Issue <u>https://doi.org/10.51168/p814w005</u> Original Article

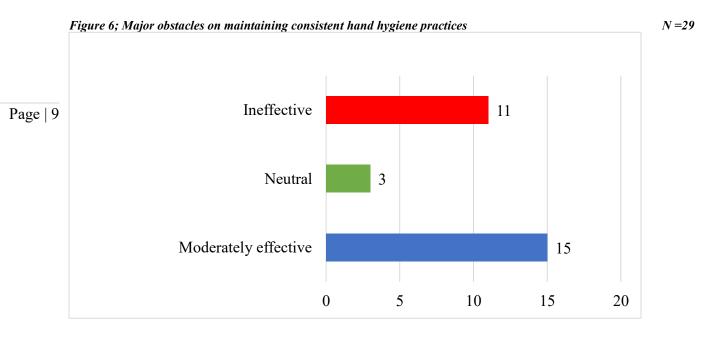


Table 5; Extent of hospital's leadership effectiveness to address and resolve challenges, N =29

	Frequency	Percent (%)
Moderately effective	15	51.7
Neutral	3	10.3
Ineffective	11	37.9

#### DISCUSSION

In this study among HCWs in Kabale Regional Referral Hospital in Uganda, we found that more than 80% of the participants had sufficient knowledge of infectious diseases.

### Knowledge of health workers on how to prevent infectious diseases in Kabale Regional Referral Hospital, Kabale District.

A substantial majority, comprising 86.2% of the 29 participants, demonstrated commendable knowledge in this domain. This encompassed an informed understanding of causative factors and the effectiveness of appropriate management strategies. The study also unveiled prevalent signs and symptoms among healthcare workers, with fever being universally reported by all respondents (100%). Other symptoms such as cough, headache, tiredness, vomiting, and more balanced distributions of muscle/joint pain and diarrhea were observed.

In comparison with Alhassan, Kuugbee, and Der's (2021) investigation into surgical healthcare workers in Ghana,

similarities emerge regarding knowledge levels. The Ghanaian study highlighted a positive correlation between training and knowledge, aligning with our findings where all 29 respondents had received training in infectious disease control and prevention. Nevertheless, specific symptom prevalence exhibited slight disparities, with universal fever in both studies, while cough and headache displayed varying prevalence rates.

Insights from Eyayu, Motbainor, and Gizchew (2022), who researched nurses in Ethiopia, accentuate the prevalence of training (similar to our study) but underscore gaps in practical application, suggesting a potential discrepancy between theoretical knowledge and its practical implementation. While fever's universal prevalence aligns with our findings, differences in the prevalence rates of other symptoms imply potential regional or contextual variations in symptom manifestations.

#### Attitudes of health workers towards prevention of infectious diseases in Kabale Referral Hospital, Kabale District.

We found that 78.4% of our study participants had a positive attitude towards infectious diseases. This is much higher than the 21% previously reported in among HCWs in Uganda (Amy, 2021) and may indicate an improvement in attitudes as HCWs learn more about infectious diseases. We, however, found that older participants (>36 years) were less likely to have a positive attitude towards infectious diseases compared to those in the youngest age group (20-25 years). This finding is consistent with the results of a study in Nigeria but not others in which either attitude improved with increasing age (Eyayu, Motbainor, & Gizchew, 2022) or was not impacted by age.

#### Practices of health workers towards prevention of infectious diseases in Kabale Regional Referral Hospital, Kabale District.

A substantial 72.4% of respondents demonstrated a commendable understanding of how to handle patients during the prevention of infectious diseases. This aligns with the observations of Alhassan et al. (2021) in Ghana, where surgical healthcare workers exhibited a positive attitude towards infection prevention and control (IPC). Moreover, a significant proportion of Kabale HCWs, 89.7%, affirmed adherence to Standard Operating Procedures (SOPs) in IPC, reflecting a strong commitment to established protocols. This dedication is consistent with the emphasis placed on core practices in infection prevention and control, as advocated by Carrico et al. (2018). The comparison underscores the global relevance of standardized procedures in promoting effective infection prevention among healthcare professionals.

Furthermore, the study highlighted that 82.8% of Kabale HCWs had received training in IPC, a crucial component in bolstering their capabilities. This finding resonates with research by Eyayu et al. (2022) in Northwest Ethiopia, emphasizing the importance of training in infection prevention practices among healthcare workers. Additionally, the Kabale respondents exhibited a commendable trend of passing on their acquired knowledge, with 82.8% actively training patients. This aligns with the principles emphasized by Kamabu et al. (2022), emphasizing the need for healthcare workers to disseminate knowledge during health crises.

However, the study identified a considerable challenge, with 96.6% of respondents acknowledging various challenges during the prevention of infectious diseases. This aligns with Lowe et al.'s (2021) observations on the challenges faced by healthcare workers in conflict-affected settings, emphasizing the importance of understanding contextual complexities. The study's approach to collecting and addressing challenges in an explanatory format is valuable for tailoring interventions to the specific needs of Kabale Regional Referral Hospital.

# Challenges faced by health workers in the prevention of infectious diseases.

At Kabale Regional Referral Hospital, the survey revealed that 82.8% of respondents face challenges in IPC, reflecting a substantial prevalence of issues in this domain. The primary challenges identified were inadequate training programs (13.8%), limited access to personal protective equipment (44.8%), poor adherence to established protocols (31%), and insufficient awareness about infectious diseases (10.3%). These findings closely align with Alhassan et al. (2021) in Ghana, emphasizing continuous education needs and addressing knowledge gaps among healthcare workers. Carrico et al.'s (2018) core practices for infection prevention and control also resonate with the issues of limited access to PPE and poor protocol adherence observed at Kabale Hospital. Moreover, CDC's (2019) guidelines and insights from Haque et al. (2020) and Kamabu et al. (2022) further underscore the importance of ongoing education and resource availability in IPC efforts.

Regarding the effectiveness of communication channels for IPC guidelines at Kabale Hospital, perceptions varied among respondents. The results showed that 6.9% rated the communication channels as excellent, 65.5% as good, 13.8% as average, and another 13.8% as poor. These findings echo Kamacooko et al.'s (2021) observations where health workers in Africa expressed mixed opinions on communication effectiveness during the initial wave of COVID-19. Aligning with Carrico et al. (2018) and Haque et al. (2020), these findings underscore the importance of clear and effective communication channels for disseminating IPC guidelines and the necessity for improvements in this area.

In assessing obstacles to maintaining consistent hand hygiene practices, the survey at Kabale Hospital highlighted inadequate access to handwashing facilities (17.2%), lack of time due to workload (20.7%), and limited availability of hand sanitizers (62.1%). These figures resonate with global discussions, as evidenced by Lindsay (2016) and Verbeek et al. (2020), emphasizing the critical role of accessibility to hand hygiene resources. The challenges identified at Kabale, including workload-related time constraints and resource limitations, parallel broader discussions in the literature regarding practical barriers faced by healthcare workers in ensuring consistent hand hygiene practices.

Regarding leadership effectiveness in addressing IPC challenges at Kabale Hospital, the findings revealed that 51.7% of respondents perceived the leadership as moderately effective, 10.3% expressed neutrality, and 37.9% deemed the leadership ineffective. These percentages align with the global discussions in Tartari et al.'s (2021) analysis, emphasizing the challenges of effective leadership in IPC. Lowe et al. (2021) also underscored the complexities of addressing IPC challenges, particularly in settings with diverse and challenging contexts, aligning with the concerns

Page | 10

expressed by respondents regarding leadership effectiveness at Kabale Hospital.

#### The conclusion from the Study Findings.

Page | 11The prevalence of challenges in Infection Prevention and<br/>Control (IPC) is evident, with more than half of respondents<br/>acknowledging the presence of obstacles in this critical<br/>domain. Key challenges identified include inadequate<br/>training programs, limited access to personal protective<br/>equipment (PPE), poor adherence to established protocols,<br/>and insufficient awareness about infectious diseases.

Maintaining consistent hand hygiene practices among health workers faces multifaceted challenges. Limited resources, including inadequate supervision and insufficient motivation, were identified as significant factors contributing to non-compliance. Furthermore, obstacles such as inadequate access to handwashing facilities, lack of time due to workload, and limited availability of hand sanitizers underscore the need for comprehensive solutions. Perceptions regarding the effectiveness of the hospital's leadership in addressing and resolving challenges related to infectious disease prevention were varied.

#### Recommendations

Based on the findings, the study has thus developed recommendations for the challenges faced by HCWs during the prevention of Infectious diseases at Kabale Regional Referral Hospital as detailed below;

Inadequate training programs for healthcare workers are a significant challenge, necessitating the investment in comprehensive and regular education on infectious disease prevention measures, proper PPE use, and adherence to protocols.

Access to resources, such as personal protective equipment and hand hygiene resources, is also crucial. Hospitals should prioritize ensuring a consistent supply of PPE and enhance accessibility to handwashing facilities and sanitizers.

Communication channels regarding IPC guidelines should be strengthened through regular updates, training sessions, and feedback mechanisms.

Leadership training programs are also needed to engage with healthcare workers, address concerns, and foster a collaborative approach to overcoming challenges in infectious disease prevention.

#### Acknowledgment

I would like to thank my Lord and Saviour for the gift of knowledge; for giving me love, and hope and propelling me to my destiny. Where would I be if God did not love me?

I would like to thank wholeheartedly to the administration of Lubaga Hospital training schools for granting me academic and administrative support. Also, I would like to thank the Kabale Regional Referral Hospital administration for providing valuable time for my study.

I am infinitely indebted to my respected supervisor Sr. Ddumba Patience for this research study especially for her encouragement, thought-provoking guidance, valuable suggestions, and her academic and administrative avocation. I got an excellent opportunity here as a supervisor. Without her support, this research could never have come to its present form. Any attempt to express my gratitude to her in words is bound to be inadequate.

I cannot ignore my respected tutor Mr. Kimera D. who is one of the members of the department committee for their kind support to this level. This work has come to an end with the help of respected teachers, friends, and my husband Mr. Magezi Hudson. Therefore, the contribution of this report is highly remarkable.

### **List of Abbreviations**

SOPs: Standard Operating Procedure

HCW: Health Care Worker

ID: Infectious Disease

IPC: Infection Prevention and Control

MOH: Ministry of Health

PPE: Personal Protective Equipment

WHO: World Health Organization

EAC: East African Community

### Source of funding

The author had no funding

#### **Conflict of interest**

No conflict of interest declared

#### Author Biography

Page | 12Charity Asiimwe a final year student of Diploma in Nursing<br/>Extension at St. Michael Lubaga Hospital Training schools

Patience Ddumba a tutor at St. Michael Lubaga hospital training schools

#### REFERENCES

- Alhassan, A. R., Kuugbee, E. D., & Der, M. E. (2021). Surgical Healthcare Workers Knowledge and Attitude on Infection Prevention and Control: A Case of Tamale Teaching Hospital, Ghana. Can J Infect Dis Med Microbiol, 2021, 25-67. doi:doi: 10.1155/2021/6619768
- Amy, C. S. (2021). Preventing Health Care– Associated Infections. In R. G. Hughes, Patient Safety and Quality: An Evidence-Based Handbook for Nurses. (pp. 1-28). Rockville: Agency for Healthcare Research and Quality (US).
- Carrico, R. M., Garret, H., Balcom, D., & Glowic, B. J. (2018). Infection Prevention and Control Core Practices: A Roadmap for Nursing Practice. National Library of Medicine, 48(8), 28-29. doi:doi:

10.1097/01.NURSE.0000544318.36012.b2

- Eyayu, M., Motbainor, A., & Gizchew, B. (2022). Practices and associated factors of infection prevention of nurses working in public and private hospitals toward COVID-19 in Bahir Dar City, Northwest Ethiopia: Institution-based crosssectional study. SAGE Open Medicine, 10(2). doi:doi:10.1177/20503121221098238
- Google. (2020, October 27). Kabale District. Retrieved January 18, 2023, from Wikipedia; the free encyclopedia: https://en.wikipedia.org/wiki/Kabale\_District#cit e note-3
- Haque, M., Mckimm, J., Sartelli, M., Dhingra, S., Labbricciosa, F. M., Islam, S., . . . Charan, J. (2020). Strategies to Prevent Healthcare-Associated Infections: A Narrative Overview. Risk Manag Healthc Policy, 13(13), 1765–1780.
- Kraef, C., Juma, P., Mucumbitsi, J., Ramaiya, K., Ndikumwenayo, F., Kallerstrup, P., & Yonga, G. (2020). Fighting non-communicable diseases in East Africa: assessing progress and identifying the next steps. BMJ Global Health, 5(11). doi:http://dx.doi.org/10.1136/bmjgh- 2020-003325
- Lindsay, N. B. (2016). The Immune System. Essays in Biochemistry, 60(3), 275–301. doi:doi:

- 9. 10.10(Eyayu, Motbainor, & Gizchew, 2022)/EBC20160017
- Lowe, H., Woodd, S., Lange, I. L., Janjanin, S., Barnet, J., & Graham, W. (2021). Challenges and opportunities for infection prevention and control in hospitals in conflict-affected settings: a qualitative study. Conflict and Health, 15(94). doi:https://doi.org/10.1186/s13031-021-00(Eyayu, Motbainor, & Gizchew, 2022)8-8
- Mendoza, M. D., Carrion-Nessi, F. S., Mejia, B. M., Marcano-Rojas, V. M., Omana, O. D., Fernandez, J. M., . . . Landaeta, M. E. (2021). Knowledge, Attitudes, and Practices Regarding COVID-19 Among Healthcare Workers in Venezuela: An Online Cross- Sectional Survey. Front. Public Health,, 9(2021). doi:https://doi.org/10.3389/fpubh.2021.633723
- Moodley, V. S., Muzimkhulu, Z., Malotle, M., Voyi, K., Claseen, N., Romadike, J., . . . Mlangeni, N. (2021). A health worker knowledge, attitudes and practices survey of Infectious diseases infection prevention and control in South Africa. BMC Infectious Diseases, 12(138), 1471-2334. doi:https://doi.org/10.1186/s12879-021-05812-6
- Ojulong, J., Mitonga, K. H., & Lipinge, S. N. (2016). Knowledge and attitudes of infection prevention and control among health sciences students at University of Namibia. African Health Sciences, 13(4), 1073-1078.
- 14. Opio, A. (2016, June 7). Tackling Communicable Diseases in East Africa: Power of Laboratory Networking. Retrieved January 30, 2023, from The World Bank: https://www.worldbank.org/en/results/2016/06/07

/east-africa-public-health-laboratory- power-of-networking

- Opollo, S. M., Otim, C. T., Kizito, W., Thekkur, P., Kumar, A. M., Kitutu, E. F., . . . Zolfo, M. (2021). Infection Prevention and Control at Lira University Hospital, Uganda: More Needs to Be Done. Basel: MDPI.
- Tartari, E., Tomczyk, S., Pires, D., Zayed, B., Rehse, A., Kariyo, P., . . . Allegranzi, B. (2021). Implementation of the infection prevention and control core components at the national level: a global situational analysis. Journal of Hospital Infection, 1(108), 94-103.
- Zenbaba, D. (2020, February 01). Practices of Healthcare Workers regarding Infection Prevention in Bale Zthe hospitals, Southeast Ethiopia. (J. C. Burns, Ed.) Advances in Public Health, 2020. doi:https://doi.org/10.1155/2020/4198081
- Zheng, L., Wang, X., Zhou, C., Liu, Q., Li, S., Sun, Q., . . . Wang, W. (2020). Analysis of the Infection Status of Healthcare Workers in Wuhan During the COVID-19 Outbreak: A Cross-sectional Study. Clinical Infectious

SJ Nursing and Midwifery Africa Vol. 1 No. 9 (2024): September 2024 Issue https://doi.org/10.51168/p814w005 **Original Article** 

71(16), 2109–2113. Diseases, doi:https://doi.org/10.1093/cid/ciaa588



Page | 13

