KNOWLEDGE RELATED FACTORS INFLUENCING THE ADHERENCE TO STANDARD OPERATING PROCEDURES (SOPs) AMONG HEALTH WORKERS AT ST. CATHERINE'S HOSPITAL KAMPALA UGANDA. A CROSS-SECTIONAL STUDY

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Abstract Background

A standard operating procedure (SOP) is a guideline that documents a routine or repetitive activity followed by an institution. The aim of the study is to establish the Knowledge-related factors influencing the adherence to standard operating procedures among health workers at St. Catherine's Hospital Kampala Uganda.

Methodology

The study used a cross-sectional descriptive design employing quantitative methods of data collection. The study sample size was 30. The researcher used a convenient method of sampling. Self-administered questionnaires were used to collect the data.

Results

The majority of health workers were female (60%) while the minority were males (40%). The majority of the health workers understand SOPS as guidelines (50%), the majority of the health workers get information on SOPS from the Ministry of Health manual (33.5%), Health workers said that they were given training 80%, and the majority of the health workers, know about waste handling in the hospital at (80%). The majority accepted to know about waste handling in the hospital (96%). The majority of the respondents were conversant with the dressings recommended in the hospital (96%).

Conclusions

Knowledge-related factors such as understanding and information sources on SOPs were also identified as important factors influencing adherence to SOPs.

Recommendations

Based on the findings, it is recommended that healthcare managers ensure that health workers receive regular and upto-date training on SOPs and that the information provided is accessible through multiple channels.

Keywords: Knowledge-related factors, Adherence to standard operating procedures, Health workers at St. Catherine's hospital.

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Background

A standard operating procedure (SOP) is a guideline that documents a routine or repetitive activity followed by an institution (Arifin & Subali, 2020). The development and use of standard operating procedures are an intrinsic part of a successful quality system as they provide individuals with the information to perform a job properly and facilitate consistency in the quality and integrity of a product or result (Peng et al., 2018). In the health care situation, the main responsibility of the nurse is to comply with standard operating procedures for documentation of medical records and providing care to patients (Liu et al., 2020). When healthcare workers do not comply with the guidelines, this may reflect a lack of knowledge of guidelines or a lack of compliance regardless of knowledge which eventually leads to deaths, injury, medical errors, patient harm, and ineffective (Higgs et al., 2018). In addition, one large survey conducted in the USA found that health workers had better 76% knowledge of SOPs which showed adherence to rules and regulations from the appropriate regulatory organizations (Anozie et al., 2017).

In Taiwan in eastern Asia, Hand hygiene compliance among the nursing staff in free-standing nursing homes there is a tool that has precise standard operating procedures with clear instructions for use however compliance among nursing staff was found to be only 11.3% which indicates poor adherence (Temime et al., 2018). In Kenya, on measuring the extent of compliance to standard operating procedures for documentation of medical records by healthcare workers it was revealed that education of health workers, on the other hand, has a substantial association with standard operating procedures in improved service delivery. This means that equipping staff with relevant skills and knowledge may have a greater role in influencing proper adherence to s standard operating procedure (SOP) (Omoit, 2021) In Nigeria Knowledge, Awareness and Compliance with Standard Precautions among Health Workers it was revealed that health workers (85.7%), midwives (80.2%) and community health officers (69.8%) were very knowledgeable of universal precautions compared with other studied health workers. They knew clothing used during care; environmental control (surface processing protocols and health service waste handling); adequate discarding of sharp instruments; and patient accommodation by requirement levels as an infection transmission source (Kiprono, 2020). In the USA on Oral Agents for Cancer: Safety Challenges and Recommendations revealed that the lack of knowledge and standardization of safety practices related to prescribing, dispensing, administering, and monitoring oral agents for cancer (OACs) has created significant safety challenges for patients and healthcare providers and this is as a result of poor adherence to SOP (Duffy & Cho, 2017). The study aims to establish the Knowledge-related factors influencing the adherence to standard operating procedures among health workers at St. Catherine's Hospital Kampala Uganda.

METHODOLOGY Study Design and Rationale

The researcher used a cross-sectional descriptive design employing quantitative methods of data collection. The study design was chosen because it offered the researcher the ability to easily gather information by collecting data at any one point in time.

Study Setting and Rationale

The study was carried out on factors influencing the adherence to standard operating procedures among health workers at St. Catherine's Hospital Kampala district. The hospital is located in Kampala in central Uganda and is bordered by Mpigi, Mukono, and Wakiso districts. The hospital is found along Buganda Road Wandegeya. St. Catherine's Hospital was selected because it had a good number of health workers who provided care to the patient. It was privately owned and operated 24 hours. It was at the level of a hospital and had a range of services it gave, including both outpatient and inpatient services, and the facility served a total of over a half million people from within the neighborhood.

Study Population

The study considered only health workers at St. Catherine's Hospital who consented to participate in the study.

Sample Size Determination

The study sample size was 30, which was representative of a sample size recommended by UNIMEB (2009).

Sampling Procedure

The researcher used a convenient method of sampling, and the study was carried out on every health worker who consented to participate in the study. The researcher collected data from the respondents from each unit at their convenience until the required number was met.

Inclusion and Exclusion Criteria

All health workers at St. Catherine's Hospital who provided patient care were eligible to participate in the study. All health workers who didn't work on patients were not eligible to participate in the study.

Research Instruments

The researcher used a self-administered questionnaire to collect the information from the study participants because it ensured autonomy, privacy, and confidentiality and consisted of both open and closed-ended questions in the English language designed to explore factors that influenced adherence to standard operating procedures.

Data Collection Procedure

Data were collected within 15 days using questionnaires. The researcher approached the health facility in charge for official permission to carry out the study. Once

permission was granted, the researcher was introduced to health workers by the PNO. Participants were informed about the purpose of the study as only for academics to encourage them to participate in the study. After they consented to participate in the study, questionnaires were supplied. The researcher assured the respondents of the utmost confidentiality of their responses but did not mention their names anywhere during report writing. After getting back the questionnaires, the researcher began analyzing data to come up with a report for examination and award of marks.

Data Management

Data were edited before leaving the area of study to ensure that there were no mistakes or areas left blank, and any found were corrected before leaving the area of study. The questionnaire was also coded for easy reference and confidentiality. The collected questionnaires were kept under lock and key only accessed by the researcher.

Data analysis

The data was analyzed manually and the researcher entered the findings into the computer using Microsoft Office programs. The data was analyzed manually using Excel which presented the data in the form of tables, graphs, and narratives to establish the accuracy of the facts.

Thereafter, interpretation was done.

Ethical considerations

Approval was obtained from the research committee of Lubaga Hospital Training Schools. Permission was sought and granted to the researcher by the principal of Lubaga Hospital.

Training Schools by obtaining an introductory letter. The letter was taken to the administration of St. Catherine's Hospital Kampala, which then granted permission and introduced the researcher to the health workers, and data collection followed thereafter.

Informed consent

The researcher commenced by introducing and explaining the topic and objectives to the health workers. The respondents were informed that participation was voluntary, and an informed consent form was signed. The researcher affirmed to the respondents that the information given was strictly confidential, and serial numbers instead of respondents' names were provided.

Results

Variable	Category	Frequency(f)	Percentages (%)	
Gender	Male female	12	40	
		18	60	
Age	25-30 years.	12	40	
	31-35 years.	5	16.6	
	36-40 years 41	8	26.8	
	years and above.	5	16.6	
Level of education	Certificate	18	60	
	Diploma	8	26.6	
	Degree	4	13.3	
Experience	Over 10years	5	16.6	
_	2-5 Years	20	66.8	
	6-10years	5	16.6	
Total		30	100	

 Table 1: Showing Socio-demographic data of the respondents (n=30)

Source: Primary Data 2023

Table 1, the majority of health workers were female (60%) while the minority were males (40%). About age, the majority of respondents (40%) were between 25-30 years, (16.6%) were above the age of 41 years. Furthermore, on level of education, the majority were certificate holders with (60%), diploma holders with (26.6%), and degree holders with (4%). Among the health workers working in infection control, the majority were those with an experience of

2-5 years (66.8%) while those with 10 years and 6-10 years' experience were (6.6%) respectively.

Knowledge-related factors influencing the adherence to standard operating procedures among health workers.



Figure 1; Showing what health workers understand by SOPS (n=30)



Figure 1, Majority of the health workers understand SOPS as guidelines (50%), while (20%) defined them as a set of principles, (26%) defined them as a systematic way of doing things and the minority said they don't know. (4%)



Figure 2; Showing where the health workers get information on SOPS from? (n=30)

Source: Primary Data 2023

Figure 2, results show that the majority of the health workers get information on SOPS from the ministry of health manual (33.5%), and a percentage of (13.3%) get information from continuous medical education who are

the minority, (26.6%) get information from radios, which also goes for health workers that get information from televisions at (26.6%).



Figure 3; showing whether health workers have ever been given any training on SOPs. (n=30)

Source: Primary Data 2023

Figure 3, health workers that said that they were given training were 80%, the majority while 20% said that they had not received any training on SOPS.





Source: Primary Data 2023

Figure 4, it shows that majority of the health workers, know about waste handling in the hospital at (80%) and the minority said they didn't know about waste handling in the hospital at (4%)

Table 2; Showing whether SOPS help reduce patients harm and how well conversant health workers are with dressings recommended in the hospital. (n=30)

Variable	Category	Frequency(f)	Percentage (%)
Waste handling	Yes	29	96
	No	1	4
If SOPS helps to reduce patients harm	Yes	28	93.3
	No	2	6.7
Total		30	100

Source: Primary Data 2023

Table 2 shows that majority accepted to know about waste handling in the hospital at (96%), majority while those that said they didn't know were (4%), and the health

workers who were asked whether SOPS reduce the patients harm ,93.3% said yes making them the majority while 6.7% said no making them the minority.

n=30





Source: Primary Data 2023

Figure 5 shows that the majority of the respondents were conversant with the dressings recommended in the hospital (96%) while the minority said they were not (4%)

DISCUSSION

Knowledge-related factors influencing the adherence to standard operating procedures among health workers

The study findings show that 50% of health workers understand SOPS as guidelines. The results indicate that most health workers have a general understanding of what SOPS are. The minority 4% didn't know what SOPS are. This implies a few of the participants lacked knowledge of SOPs and they need to be trained. The findings are in line with a study conducted in Nigeria on Knowledge, Awareness, and Compliance with Standard Precautions among Health Workers where it was revealed that health workers were very knowledgeable of universal precautions compared to other studies. They knew clothing used during care; environmental control (surface processing protocols and health service waste handling); adequate discarding of sharp instruments; and patient accommodation by requirement levels as an infection transmission source (Kiprono, 2020).

The research findings show that the majority of health workers got information about SOPS from the Ministry of Health manual (33.5%). This shows that the facility collaborates with the Ministry of Health Uganda in equipping workers with knowledge regarding Sops. The minority (13.3%) got information from continuous medical education. This also shows that CMEs impact the knowledge of the health workers. The results suggest that there are multiple sources of information on SOPS available to health workers, and they use a variety of channels to access this information. Healthcare managers

need to ensure that the information provided to health workers is accurate and up-to-date and that it's accessible through multiple channels. This is in line with the findings of the study on the Impact of Online Information on SelfIsolation Intention During the COVID-19 Pandemic here health workers were getting information from different sources on SOPS (Farooq et al., 2020).

Study findings show that 80% of health workers received training on SOPS. This indicates that the hospital organizes CMEs to equip health workers with knowledge concerning SOPs and minds about the safety of its patients. The minority 20% didn't receive any training, this indicates a gap in knowledge among some health workers and calls for training to improve their knowledge. The results suggest that training on SOPS is widespread among health workers, but there is still a minority that hasn't received any training. Training is critical for ensuring that health workers understand and follow SOPS, and it's essential for improving patient safety. The findings are in agreement with a study conducted in a private hospital of Belo Horizonte Brazil on Nursing in the hospital accreditation process: practice and implications in the work quotidian which found that the continuous improvement training revision of the SOPs led so much in compliance to the SOPs by health workers and improved the quality care (Siman et al., 2014)

This finding shows that 80% of health workers knew about waste handling in the hospital. The results imply that most health workers are knowledgeable about waste handling, which is essential for maintaining a safe and healthy environment in healthcare facilities. Proper waste management is critical for preventing the spread of infections and protecting healthcare workers and patients. This is in line with a cross-sectional study conducted in Nigeria where 85.7% of health workers knew clothing used during care; environmental control (surface

processing protocols and health service waste handling); adequate discarding of sharp instruments; and patient accommodation by requirement levels as an infection transmission source (Kiprono, 2020)

From the findings of the study, 93.3% of health workers believed that SOPS could reduce patients' harm. The results suggest that most health workers believe that SOPS can improve patient safety. Healthcare managers must continue to reinforce the importance of SOPS to ensure that all health workers understand their significance. This is in line with a study done in Brazil on Standard operating procedure: use in nursing care in hospital services, it was found that when most of the health workers were asked about compliance with SOPs 57% mentioned a lack of time for them to perform of all the procedures and this influences the quality of service given to people thus it can cause harm to the patient in case the SOPs are not followed (Rocha et al., 2014).

The results of the study indicate that 96% of health conversant with workers were the dressings recommended in the hospital. This indicates that almost all of the respondents were aware of what is done in the facility. The minority 4% were not aware. The results indicate that health workers are knowledgeable about the dressings recommended in the hospital, which is crucial for providing quality care to patients. Proper dressings can prevent infections and promote healing, and health workers need to know how to use them correctly. This is in line with the study done in Nigeria where health workers knew clothing used during care; environmental control (surface processing protocols and health service waste handling); adequate discarding of sharp instruments; and patient accommodation by requirement levels as an infection transmission source (Kiprono, 2020).

Conclusions

Knowledge-related factors such as understanding and information sources on SOPs were also identified as important factors influencing adherence to SOPs.

Recommendations

Based on the findings, it is recommended that healthcare managers ensure that health workers receive regular and up-to-date training on SOPs and that the information provided is accessible through multiple channels.

Acknowledgment

I thank God for he has permitted me to successfully achieve this precious dream. My sincere gratitude goes to my supervisor Ms. Babirye Magdalene for your tireless and valuable guidance and academic intellect throughout this research. The confidence and academic expertise offered have enabled me to make it up to the end of this course Special thanks go to St. Catherine's Hospital Kampala Uganda and the study participants who made the data collection process a smooth one. Lastly, special regards and appreciation go to my beloved family and all my relatives for your financial support and encouragement throughout my studies.

List of abbreviations

SOP:	Standard Operating Procedures
CME:	Continuous Medical Education
PNO:	Principal Nursing Officer

Source of funding

The study was not funded

Conflict of interest

The author did not declare any conflict of interest

Author contributions

Maureen Namagembe collected the data, analyzed the data, and drafted the manuscript of the study. Magdalene Babirye Supervised all the stages of the research project to the drafting of the manuscript.

Availability of Data

Authorization to re-use or reprint this work should be with written permission from the author or administration of Lubaga Hospital Training Schools.

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PUBLISHER DETAILS: