

Attitudes of health workers towards infection control at Kajjansi Health Centre IV. A cross-sectional study.

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Abstract

Background:

Attitudes of health workers toward infection control significantly influence their willingness to adhere to recommended preventive measures and ensure patient safety. Therefore, this study aims to determine the attitudes of health workers towards infection control at Kajjansi Health Centre IV.

Methodology:

A cross-sectional study design was used, where participants were given questionnaires to fill in quantitatively, the data were coded, and analysed with the aid of the Statistical Package for the Social Sciences (SPSS) version 25, and presented using tables, Bar charts, and pie charts.

Results:

A total of 55 healthcare workers were interviewed, 61.8% (34/55) were females. The mean age of the participants was 25.3, with the majority, 54.5% (30/55), in the age group of 26 to 30 years. 50.9% (28/55) of the participants were diploma holders, and 63.6% (35/55) of the participants were nurses. 89.1% (49/55) of healthcare workers agreed that washing hands before and after contact with patients was important. 85.5% (47/55) agreed feeling comfortable telling coughing patients to follow cough hygiene procedures, 56.3% (31/55) of health workers believe that PPE protects health care workers from infection. 50.9% (30/55) of the health workers had a positive attitude towards infection control, while 49.1% (25/55) had a negative attitude.

Conclusion:

More than half of health workers had a positive attitude toward infection control, while the rest showed negative attitudes, indicating mixed perceptions.

Recommendation:

There is a need for continuous training and sensitization to improve attitudes toward infection control. Strengthening supervision and reinforcing the importance of PPE use are also necessary.

Keywords: Infection control, attitudes of healthcare workers, Kajjansi Health Centre IV, patient safety.

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Background of the study

The attitudes of healthcare workers (HCWs) toward infection control play a critical role in shaping their compliance with recommended infection prevention practices. The World Health Organization emphasizes that a positive attitude toward infection prevention and control (IPC) is essential for sustaining safe healthcare practices and reducing the spread of healthcare-associated infections. Attitude influences how HCWs perceive risks, prioritize infection control measures, and adhere to established guidelines in their daily clinical activities.

Globally, studies have demonstrated that HCWs' attitudes toward infection control vary considerably and often impact the effectiveness of IPC programs. In Ethiopia, Kelemua (2014) reported that only 55.6% of healthcare workers had

a positive attitude toward infection prevention, indicating that nearly half of the workforce may not fully appreciate the importance of adhering to infection control measures. This gap in attitude can hinder the consistent application of preventive practices, even when knowledge levels are adequate. Similarly, Yakob (2015) found that although a significant proportion of HCWs (76.3%) perceived themselves to be at risk of acquiring infections such as HIV in the workplace, this awareness did not always translate into safe attitudes and behaviors. For instance, improper disposal of sharps and inconsistent use of protective equipment were still reported. This suggests that risk perception alone is insufficient to foster positive attitudes unless reinforced by institutional support and continuous training.

In Palestine, Imad (2015) identified variations in attitudes toward infection control based on demographic factors such as gender and professional qualification. These findings highlight that attitudes are influenced by both individual and contextual factors, which may affect how HCWs engage with infection control protocols. Bouallègue (2013) further emphasized that fostering positive attitudes requires not only education but also behavioral change strategies, motivation, and supportive supervision within healthcare settings.

Within Uganda, available evidence suggests similar challenges. Although Katamba (2012) reported that health workers at Mulago Hospital had good knowledge of infection control, their attitudes were sometimes skewed toward self-protection rather than patient safety. This indicates a limited appreciation of the broader goal of infection control, which includes preventing cross-infection among patients. Additionally, the study conducted in Arua District by Peter (2015) revealed systemic challenges, such as the lack of infection control committees and inadequate resources, which can negatively influence HCWs' attitudes by reducing motivation and the perceived importance of IPC measures. These studies collectively demonstrate that positive attitudes toward infection control are not solely dependent on knowledge but are also shaped by workplace environment, resource availability, and institutional culture. In lower-level health facilities like Kajjansi Health Centre IV, understanding HCWs' attitudes is essential for identifying barriers to effective infection prevention and for designing interventions that promote a culture of safety. Therefore, this study aims to determine the attitudes of health workers toward infection control at Kajjansi Health Centre IV.

Methodology

Study design

A cross-sectional study design was used, where health workers were interviewed. This design was chosen because it is relatively easy and economical to conduct.

Study area

The study was conducted at Kajjansi Health Centre IV in Wakiso district. The centre has an Out-Patient Department, In-patient wards, a laboratory, maternity, and pharmacy. The laboratory is well equipped to handle blood, urine, and stool samples, and has a hematology, biochemistry, and microbiology section. This site was chosen because it's a government facility, hence it has a large catchment area and is easily accessible to the researcher.

Study population

All health care workers employed at Kajjansi Health Centre IV were eligible for the study once they consented. This population was chosen because they are in direct contact

with the patients and are also exposed to biohazard materials.

Sampling techniques

A purposive sampling technique was used in this study, where a list of the names of all the healthcare workers was generated from the hospital's official records and contacted on first come first serve basis until the required sample size. This was chosen because it gave a representative view of the population, was less time-consuming, and economical to apply.

Sample size determination

To calculate the minimum sample size, Slovin's formula was used

Where;

$$N = \text{Population size } e = \text{Margin of error } n = \text{sample size}$$

$$n = \frac{N}{1 + Ne^2}$$

In this study, a 99% confidence interval was used.

This gives $(1 - 0.99 = 0.01)$ as the margin of error

$$n = 60$$

$$1 + (100(0.01)^2)$$

$$= 59$$

In this study, a sample size of 59 health care workers was needed

Selection criteria

Inclusion Criteria

All healthcare workers in direct contact with patients who had consented were enrolled in the study.

Exclusion Criteria

All health workers handling emergency cases during the time of the study were excluded, and also those who were on duty were excluded from the study.

Study Variables

Independent Variables

In this study, the independent variables were various socio-demographic characteristics and institutional factors.

Dependent Variable

In this study, the dependent variable was the attitude of healthcare workers towards infection control.

Piloting the study

To establish the validity and reliability of the study, the researcher sought the opinion of the supervisor and also distributed 5 questionnaires randomly to 5 volunteer staff of Kajjansi Health Centre IV before applying the research tool so that any items missing in the questionnaire were added and those unsuitable were removed.

Data collection tools

In this study, a questionnaire and interview schedule were used. The questionnaire consisted of open and closed questions and was used to collect qualitative and quantitative data, while the interview was conducted one-on-one with prepared schedules to encourage the respondent to give an in-depth and heartfelt response without fear of revealing information.

Data collection procedures

Informed consent was obtained from the participants who met the inclusion criteria of the study. Those who agreed to participate in the study were enrolled after an explanation about the study, the risks and benefits of the study, confidentiality, and their freedom to decline to participate, and after signing an informed consent form. After being enrolled, the participants were interviewed using a structured questionnaire on a face-to-face basis and given unique numbers as identifiers to avoid repeat interviews with the same participant in the subsequent visits. A yellow sticker with the study number was used for unique identification of the participant after the interview, and the sticker was placed inside the top cover of the file. Also, a daily log of the out-patient number, name, and study number assigned to each participant was kept to counter-check when doing subsequent visits.

Participants' knowledge was assessed by 15 questions as follows: each question had a group of answer points, one point was awarded for each correct answer; incorrect or I don't know " answers took zero. Correct responses were summed up to get a total knowledge score for each participant.

Attitude was assessed by 12 statements using a 5-item scale (ranging from strongly agree 5 to strongly disagree, 1).

Data presentation and analysis

The data was analysed with the aid of the Statistical Package for the Social Sciences (SPSS) version 25 and presented using tables, Bar charts, and pie charts.

Quality control of the study

To ensure high-quality data, the data collected was checked for consistency immediately, where any missing or unclear responses to the question were corrected by requesting the participant for additional time to clarify the responses to the question before the study participant left the site.

Ethical consideration

Before starting the study, a letter of introduction and a copy of the research proposal were presented to the Kajjansi Health Centre IV administrator for approval. Also, verbal consent was obtained from the participants before interviewing and after explaining to them about the study, and they had the freedom to participate or not. They had the right to withdraw from the study at any time if they wished, and the investigator respected their decisions without compromising their service delivery at the hospital. Information obtained from the participant was handled with confidentiality by using study numbers and initials.

Results

Socio-demographic characteristics of the study participants

A total of 55 healthcare workers were interviewed, yielding a response rate of 91%, and the majority, 61.8% (34/55), were females. The mean age of the participants was 25.3, with the majority, 54.5% (30/55), in the age group of 26 to 30 years. A great proportion, 50.9% (28/55) of the participants were diploma holders, and 63.6% (35/55) of the participants were nurses.

Table 1: Socio-demographic characteristics of participants at Kajjansi Health Centre IV (n=55)

Variables		Frequency	Percentage
Age (years)	21 – 25	20	36.4
	26 – 30	30	54.5
	Above 31	5	9.1
Gender	Male	21	38.2
	Females	34	61.8
Marital status	Single	25	45.5
	Married	30	54.5
Education status	BSc and above	1	1.8
	Diploma	28	50.9
	Certificate	26	47.3
Work experience	<5 years	20	36.4
	5-10 years	25	45.5

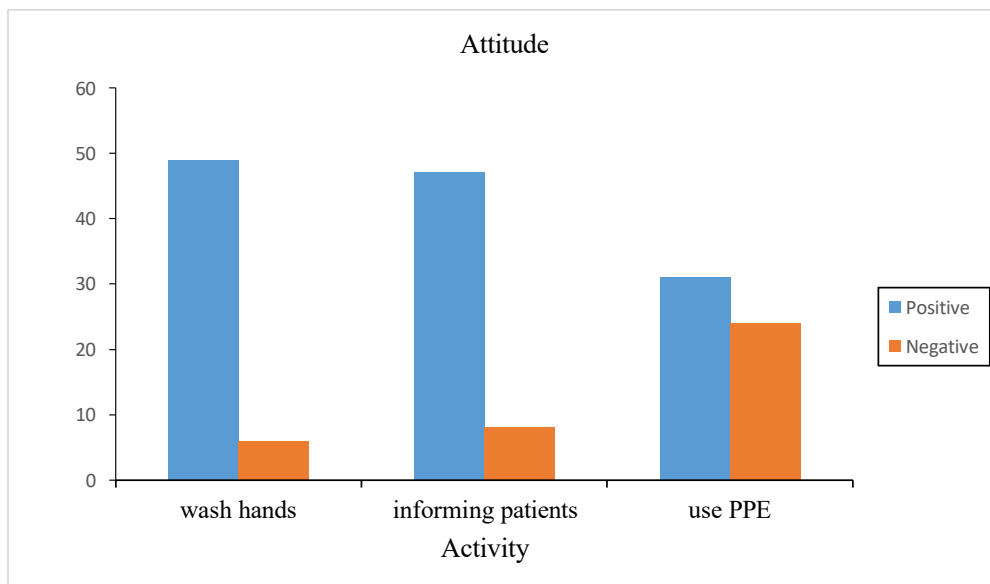
	>10 years	10	18.2
Cadre	Physician	1	1.8
	Nurse	35	63.6
	Midwife	10	18.2
	Lab technicians	9	16.4
Had taken training in infection control	Yes	45	81.8
	No	10	18.2
Infection control guidelines available	Yes	50	90.9
	No	5	9.1

Attitude of healthcare workers towards infection control

Figure 1 showed that 89.1% (49/55) of healthcare workers agreed that washing hands before and after contact with patients was important. 85.5% (47/55) agreed feeling

comfortable telling coughing patients to follow cough hygiene procedures, 56.3% (31/55) of health workers believe that PPE protects health care workers from infection. Also observed, 50.9% (30/55) of the health workers had a positive attitude towards infection control, while 49.1% (25/55) had a negative attitude.

Figure 1: Attitude of participants towards infection control



Discussion

The study revealed that most health workers at Kajjansi Health Centre IV demonstrated generally positive attitudes toward key infection control measures. A high proportion (89.1%) agreed that handwashing before and after patient contact is important, while 85.5% felt comfortable reminding coughing patients to observe cough hygiene. These findings suggest strong awareness of personal responsibility in preventing infection transmission, which is

an encouraging indicator for infection prevention efforts. However, only 56.3% of respondents believed that personal protective equipment (PPE) effectively protects health workers from infection. This relatively moderate perception may affect consistent and proper use of PPE in clinical practice. Similarly, only 50.9% of health workers had an overall positive attitude toward infection control, while 49.1% had a negative attitude, indicating a nearly equal split

and suggesting inconsistency in attitudes across the workforce.

These findings are consistent with studies conducted in similar settings. For example, Katamba et al. (2012) in Uganda found that although healthcare workers had good knowledge of infection control, their attitudes were often influenced by perceived personal risk rather than patient safety, leading to inconsistent adherence to preventive measures. Likewise, a study in Addis Ababa, Ethiopia, reported that while most healthcare workers believed hand hygiene reduces infection transmission, only about two-thirds demonstrated favourable attitudes toward full compliance with infection prevention standards (Tenna et al., 2014).

In another Ugandan study, health workers at Kiruddu Referral Hospital showed generally moderate attitudes toward infection prevention, with only 66.7% demonstrating favourable attitudes, and gaps noted in perceptions of PPE use and guideline adherence (Mbonye et al., 2023). Similarly, WHO (2016) emphasizes that positive attitudes toward infection control are strongly influenced by training, availability of resources, and institutional support, and that gaps in these areas often lead to inconsistent behavioral responses among health workers.

Conclusion

The study found that only 50.9% of health workers at Kajjansi Health Centre IV had a positive attitude toward infection control, while 49.1% had a negative attitude. Although most respondents recognized the importance of hand hygiene and were willing to promote cough etiquette, attitudes toward the effectiveness of PPE were moderate, indicating mixed perceptions about infection control measures.

Recommendation

There is a need for continuous health education and behavioral change communication to improve attitudes toward infection control among health workers. The facility should also strengthen supervision and regular sensitization on the importance of PPE and adherence to infection prevention guidelines.

Acknowledgement

I want to thank the participants, the administration of Kajjansi Health Centre, and my supervisor for your time, efforts, and knowledge during the study period. Thank you, may God reward you abundantly

List of Abbreviations

HCAIS:	Health Care-Associated Infections
HCWs:	Health Care Workers
HIV:	Human immunodeficiency virus
NI:	Nosocomial Infection
PEP:	Post-Exposure Prophylaxis
TB:	Tuberculosis
WHO:	World Health Organization

Data availability

The data is available upon request.

Informed consent

Written informed consent was obtained from all participants before their inclusion in the study. Participants were informed about the purpose of the study, procedures involved, potential risks and benefits, and their right to withdraw at any time without penalty.

Source of funding

The study did not receive any external funding.

Conflict of interest

The author did not declare any conflict of interest.

Author contributions

Duncan Edward Kasibante was the principal investigator Frank Ssegujja, Ssemuwemba Francisco, Jane Frank Nalubega, and Hasifa Nansereko supervised the research project

Author biography

Duncan Edward Kasibante holds a Diploma in Medical Laboratory Technology from Mildmay Health Institute.
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