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Knowledge, Attitudes and Practices towards Infection Prevention Control among Healthcare Workers in Selected Hospitals Located in Karongi district, Rwanda

Jean Claude Haguminshuti[1], Ernest Safari[1], Monica Mochama[1], Erigene Rutayisire[1,*]

[1]Public Health Department, Mount Kenya University Rwanda

Corresponding author:

Erigene Rutayisire, Public Health Department, Mount Kenya University Rwanda

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Abstract

Most hospitals have infection prevention and control committees but some of them are struggling to maintain and to apply infection prevention and control protocols due to lack of enough resources. Healthcare workers' (HCWs) knowledge, attitude and practices (KAP) of infection prevention and control procedures are crucial for effective infection prevention and control (IPC). The study aimed to assess HCW's KAP towards IPC in Rwanda. A cross-sectional hospital based study was directed in three hospitals in Karongi district from February to March 2022. Data were collected from 215 healthcare workers using a pre-tested self-administered questionnaire using a stratified sampling technique. Data were collected, checked, coded, and entered into the Kobo Collect Toolbox before being transferred to SPSS version 21 for analysis. Bivariate and multiple logistic regression analyses were performed. The KAP Score was also calculated. P-values of less than 0.05 were considered statistically significant. We found that 50.7% of HCWs were males, 63.3% were between the ages of 18 and 58.2% had a secondary education. The overall 78.6% of HCWs demonstrated high level of knowledge, 79.5% with a positive attitude, and 63.3% with good IPC practice. The results revealed that being over 45 years old(AOR=3.1;95%, CI=[2.16-5.25]; p=0.024), having university level(AOR=3.3; 95%CI= [1.56-7.56]; p=0.035), working experience between 5-10years(AOR=1.7; 95%CI=[1.37-5.45]; p=0.003), having high level of knowledge (AOR=2.7;95%CI: [1.68–7.95]; p=0.045)and positive attitude(AOR=2.3; 95%CI:[1.36-7.72]; p=0.017) towards IPC were associated with IPC good practice. Improving institutional supplies such as hand hygiene supplies, PPE, water supply and other facilities can improve safe infection prevention and control.

Introduction

The nosocomial infections and the related ones are known as infections emerging successively in the practice of care in a healthcare facility that was not existing/incubating at the time the client was admitted, complained after discharge or developed to facility personnels [1]. Studies revealed that, ten percent of patients hospitalized mostly in countries of all economical status either developed or none developed suffer from those infections and consequently emanate in adverse negative impacts/outcomes such as length of stay, mortality, poverty and morbidity. In addition, in developing countries, the significant number/majority (90%) of these infections occurred [2,3,4. The findings from various researchers shown that the burden of health care acquired infections were associated with poor risk reflection to infection prevention programs, which was not considered by authorities, unhygienic practices [5-6]. The moderate and efficient intervention for infection prevention are available and feasible but still the prevalence of such infections is still high in mostly under developed countries [7,8,9] and 15% in Ethiopia [6].On world context, risks on contamination mount to 3% for HIV prevalence and hepatitis on 40% [10].

Annually due to occupational exposure, infection cases emerge continuous on the following scale to medical providers. More importantly, the fore mentioned infections can be prevented and controlled through effective IPC measures and significantly minimize the risks among health professionals [11].

The report from health international bodies present that nearly 100,000 of two million patients die every year suffer from hospital-acquired infections. IPC non compliance the staff who mal-practice infection prevention measures had Hepatitis B,C and HIV infections. Thus, healthcare professionals are major front liners for protecting clients and themselves from infection [12].

Annually worldwide more than three million exposures are reported by World Health Organization, in Africa data indicate that needle stick injuries occur on average of range of two and four annually in South Africa Nigeria and Tanzania, while on medical staff the average injuries are 2.1 [13]. Reports indicate that precautions, including aseptic techniques, Overseeing injuring materials eg syringes and the likes, linen, spills, and maintaining of autonomous space, are tangible effective in preventing occupational exposures and mostly associated infections [14].

High-income countries follow IPC Standard Precautions to protect healthcare Workers from occupational exposure to blood and the risk of infection with blood borne pathogens. In low-income countries, where standard accommodation is sometimes used, the situation is different [15].

Epidemiologically, the burden of health the nosocomial infection is also significant high among low income earner's countries [16].Despite of the fact that the feasible interventions with minimum costs, the meekness/ acceptance with guidelines and policies for control practices remains no positive outcome [17].

Concession/compliance by medical personnel who make attention in service been proved as core role players to prevent and set mitigations in fighting nosocomial infections. The mentioned remedial outputs guarantee the safety of health facility workers and clients, the most among precautions highlighted are proper hand hygiene hand hygiene and use of PPES [18].

Even if the previous practices and interventions to curb down these infections at health facilities, still high prevalence remain persisting in our health facilities to our clients even the health personnel [19]. Furthermore, limited resources, a multi-sectorial approach plays a major concern based on improved healthcare infrastructures and facility structures, effective guidelines, behavioral changes, increased KAP adjustments, including efficient use of existing resources [20].

The health system of Rwanda achieved tangible efforts with positive progress in the area of disease burden reduction, country wide. That makes the strong need for personnel trainings on the subject matter at all health facilities levels [21]. Nevertheless various

researches engrossed on knowledge of and pertaining with IPC precautions and preventive guidelines and SOPs. The research findings/insights have been generated on HCWs in hospitals about the subject matter was proved to be finite [22]. As far as there has been no similar study focusing on IPC in Kibuye, Kirinda and Mugonero hospitals, this study will aim to assess the healthcare workers' KAPin Rwanda. Another reason of this study is that; the IPC standards inaccreditation assessment has marked Karongi district at a low score with 42%. The overall objective of this study will be assessment for knowledge, attitude and practice (KAP) towards (IPC) among healthcare workers (HCWs) in Rwanda.

Methods

Research Design

This study was a descriptive cross-sectional study design. This research was a quantitative study in nature. This study aims to assess the HCWs'KAP towards IPC among in Rwanda. The sample size for this study equals to 215 healthcare workers. A stratified sampling or cluster sampling was considered to identify the sample unit. Strata were constituted of hospitals targeted by this study. A self-completed questionnaire was used for data collection. Data entry and statistical analysis were performed using SPSS version 21. This study was conducted at Kibuye, Mugonero and KirindaHospitals located in Karongi district, Rwanda.

Karongi is a district in Western Province of Rwanda and it is divided into 13 sectors: Bwishyura,Gishyita, Gashari, Gitesi,Mubuga, Murambi, Murundi, Mutuntu,Rubengera, Rugabano, Ruganda, Rwankuba and Twumba. The 4th Rwanda Population and Housing Census (PHC4) counted 331,808 people in Karongi District, accounting for 13.4 percent of the Western Province's total population [23].

Target population

According to hospital administration, Kibuye Hospital accounts for 187HCWs, Kirinda Hospital has 132HCWs and Mugonero Hospital accounts for 147HCWs. This study was targeting a population of 466 healthcare workers working in those three hospitals (Karongi Integrated Personnel and Payroll System, 2021).

Sampling Design and Sampling Procedures

Yamane's formula was used to estimate the sample size. When the researcher has a finite population and the population size is known, this formula is used [24].

the following formula was used: $n = N/(1+N(e)]^2$

Where:

n =corrected sample size,

N =population size, and,

e =margin oferror equals to 5% or 0.05 at 95% confidence interval.

Hereafter, $n = 466/[1+466(0.05)^2] = 215.2 \sim 215$

With a 95 percent confidence interval of 5 percent marginal error, the sample size for this research is 215 HCWs to be examined. The 215 HCWs were distributed proportionally within Kibuye, Kirinda and Mugonero Hospitals.

Inclusion and Exclusion Criteria

Every healthcare worker who was working in the selected department (Doctors, Health officers, Midwives, Nurses, X-ray Technician, and Pharmacy laboratory staff) and who have worked at least 3 months in these hospitals was involved. Healthcare workers absent during data collection for annual leave or other reasons were excluded.

Data Collection Procedure

For data collection, a self-administered questionnaire (SAQ) was distributed at the HCWs work unit. The tool was created using a modified CDC Infection Prevention and Control tool for acute care hospitals [15] and related kinds of literatures [26,27] and [28] and modified according to Rwanda context.

Data Processing and Analysis

SPSS v.21 was used for data entry and statistical analysis. Socio-demographic characteristics were calculated using descriptive statistics such as frequencies

and percentages and continuous variables expressed as means and standard deviations. The cut-off values were scores less than 60%, which were seen as low knowledge, negative attitudes, or bad practices, while those higher than 60% were seen as high knowledge, positive attitudes, and good practices. The KAP score was calculated by adding the total scores for each respondent. To assess the relationship between dependent and independent variables, bivariate and multivariate logistic regressions were used. Variables with a p-value less than0.05 ($p<0.05$) in the bivariate analysis were then entered into a multivariable logistic regression to control for the effect of confounders. The statistical significance was confirmed at the $p < 0.05$ with 95% of Confidence interval (CI).

Ethical Considerations

The researcher considered ethical issues concerning research ethics. Mount Kenya University's Institute of Postgraduate Studies and Research has provided ethical clearance and an introduction letter. These documents were presented to the Karongi district administration in order to obtain permission to conduct the research. Prior to completing the pre-tested self-administered questionnaire, the sampled respondents signed an informed consent form. By coding questionnaires, storing data in a password-protected database, and only using data for academic purposes,

Table 1. Sociodemographic characteristics of the respondents

Variables		Frequency (n)	Percent (%)
Hospital	Kibuye Hospital	86	40.0
	Kirinda Hospital	61	28.4
	Mugonero Hospital	68	31.6
Gender	Male	109	50.7
	Female	106	49.3
Age category	18-35 years	136	63.3
	36-45 years	44	20.5
	More than 45 years	35	16.2
Marital status	Single	73	34.0
	Married	142	66.0
Level of education	Primarylevel	8	3.7
	Secondary level	125	58.2
	University	82	38.1
Occupational status	Physicians	18	8.4
	Nurses	108	50.2
	Midwifes	27	12.6
	Lab technicians	23	10.7
	Administrative officers	11	5.1
	Cleaners	28	13.0
Work experience	<5 years	113	52.6
	5-10 years	58	27.0
	>10 years	44	20.4

Source: Primary data (2022)

Table 2. Responses-related to the respondent's knowledge towards IPC

Variables	Frequency (n)	Percent (%)
Disinfection prevents health care acquired infections.		
Corrects answers	206	95.8
Incorrect answers	9	4.2
Antiseptic prevents health care acquired infections.		
Corrects answers	195	90.7
Incorrect answers	20	9.3
All equipment is sterilized using a chemical process.		
Corrects answers	93	43.3
Incorrect answers	122	56.7
For all equipment, physical sterilization (heat/radiation technique) is used.		
Corrects answers	78	36.3
Incorrect answers	137	63.7
Autoclaving destroys all microorganisms, including spores.		
Corrects answers	132	61.4
Incorrect answers	83	38.6
Each equipment needs decontamination beforesterilization.		
Corrects answers	175	81.4
Incorrect answers	40	18.6
Personal protective equipment minimizes health care acquired infection.		
Corrects answers	199	92.6
Incorrect answers	16	7.4
Wearinggloves replace the need for handwashing.		
Corrects answers	62	28.8
Incorrect answers	153	71.2
There is PPE for HIV after exposure.		
Corrects answers	209	97.2
Incorrect answers	9	2.8

Source: Primary data (2022)

Table 3. Distribution of respondents' knowledge, Attitude and Practices towards IPC

	Frequency (n)	Percent (%)
Level of knowledge about IPC		
Low (Score <60%)	46	21.4
High (Score ≥ 60%)	169	78.6
Minimum score: 10.0	Mean score:11.7 ; Stand. Dev.:1.4	
Maximum score: 16.0		
Attitudes towards IPC		
Negative (Score < 60%)	44	20.5
Positive (Score ≥ 60%)	171	79.5
Minimum score: 6.0	Mean score:22.2; Stand. Dev.:6.3	
Maximum score: 30.0		
Practice towards IPC		
Poor (Score < 60%)	79	36.7
Good (Score ≥ 60%)	136	63.3
Minimum score: 10.0	Mean score:11.8; Stand. Dev.:2.1	
Maximum score: 20.0		

Source: Primary data (2022)

Table 4. Responses-related to the respondent's attitudes towards IPC

Variables	n (%)				
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
When caring for a patient, you must be concerned about exposing your family and friends to HCAIs.	21(9.8)	23(10.7)	17(7.9)	97(45.1)	57(26.5)
HCWs at my facility are concerned about contracting HCAIs while caring for patients.	15(7.0)	20(9.3)	12(5.6)	125(58.1)	43(20.0)
Washing hands before and after contact with patients reduces the risks of getting HCAIs.	19(8.8)	15(7.0)	4(1.9)	95(44.2)	82(38.1)
I believe PPE protect HCWs from infection.	2(0.9)	22(10.2)	13(6.0)	151(70.2)	27(12.6)
In the absence of standard precaution, Infection and nosocomial diseases can occur in health care facilities.	14(6.5)	10(4.7)	21(9.8)	91(42.3)	79(36.7)
In your workplace, there is a high risk of occupational infection among health workers.	19(8.8)	73(34.0)	33(15.3)	71(33.0)	19(8.8)

Source: Primary data (2022)

confidentiality was always maintained.

Results

Socio-Demographic Characteristics of The Respondents

According to Table 1, 40.0 percent of respondents were from Kibuye Hospital, 50.7 percent were males, 63.3 percent were between the ages of 18 and 35 (mean age: 34.7 years, SD: 8.5, minimum age: 20 and maximum age: 58), married (66.0 percent), 58.2 percent had a secondary education level, more than half (50.2 percent) were nurses, and 52.6 percent had less than 5 years of experience.

Knowledge Towards IPC in Three Hospitals of Karongi District

According to Table 2, the majority (95.8 percent) of respondents knew that disinfection prevents HCAIs, 90.7 percent believed that antiseptic prevents HCAIs, 56.7 percent believe that chemical sterilization is used for all equipment, 63.7 percent believe that physical sterilization (heat/radiation method) is used for all equipment, and 61.4 percent believe that autoclaviation destroys all microorganisms including spores.

Overall Knowledge Score

The SPSS score assessment was used to assess nine (9) questions related to IPC knowledge, and the score was two (2) marks for a right answer and zero (0) for a false answer. By adding the scores for each respondent across all nine (9) questions, an overall knowledge score was calculated. According to Table 3, 78.6 percent of respondents had a high level of knowledge about IPC, while 21.4 percent had a low level of knowledge about IPC. The mean knowledge score for all respondents was 11.7 out of a possible 18 (standard deviation = 1.4). The minimum and maximum scores were 10 and 16, respectively.

Participants' Attitudes Towards IPC in Three Hospitals of Karongi District

According to the findings in Table 4, 45.1 percent of participants agreed that when caring for a patient, they must be concerned about exposing their family and friends to the risk of infection HCAIs. 58.1 percent of HCWs in their institution are concerned about acquiring HCAIs while caring for patients; 44.2 percent agreed that washing hands before and after contact with patients reduces the risk of acquiring HCAIs; 70.2 percent agreed that PPE protects HCWs from infections. In the absence of standard safeguards, 42.3 percent agreed that Infection and nosocomial diseases can occur in health care facilities, while 34.0 percent disagreed that the threat of occupational infections between health workers in their workplaces is high.

Overall Attitude Score

Each respondent's overall score for the setting was calculated by combining the scores of the six (6th) attitude-related questions. The answers were graded on a scale of 0 to 5. The responses were graded on a Likert scale. According to the results in Table 3, 79.5 percent of respondents have a positive attitude toward IPC, while 20.5 percent have a negative attitude toward IPC. The average attitude rating for all respondents was 22.2 (standard deviation = 6.3, minimum score = 6 points, maximum score = 30 points).

Practices Towards IPC in Three Hospitals of Karongi District

The findings in Table 6 revealed that the majority of respondents (97.2 percent) wash their hands before caring for patients, 94.9 percent wash their hands using soap after patient care/contact with fluid, 65.6 percent did not wash their hands without using soap before and after patient care, 88.4 percent were using PPEs from where the majority of respondents (98.1 percent) protect themselves against HCAIs by using gloves, 91.2 percent are wearing face masks, 70.2 percent are wearing face masks, Almost all participants (96.3%) confirmed the presence of written infection control policies and procedures in their workplace, and 55.8 percent recapped needles before disposal. More than half (67.0 percent) had a history of blood, fluid, or stick injury contact. Following that, 39.0 percent of respondents used post-exposure prophylaxis (PEP) after being exposed to blood or sticky injury, 29.2 percent used alcohol to clean themselves, and 51.3 percent washed them with water. In terms of prevention, 91.6 percent of hospitals provided HCAI health education

Table 5. Responses-related to the respondent's practices towards IPC

Variables		Frequency (n)	Percent (%)
Wash hands using soap before patient care	Yes	209	97.2
	No	6	2.8
Wash hands using soap after patient care/ contact with fluid	Yes	204	94.9
	No	11	5.1
Wash hands without using soap before and after patient care	Yes	74	34.4
	No	141	65.6
Are using personal protective equipment (PPE) when taking care of patients?	Yes	190	88.4
	No	25	11.6
What kind of PPE are you using in patient care? (n=190)	Gloves	186	98.1
	Goggles	112	59.1
	Face masks	173	91.2
	Gown	133	70.2
	Other PPE	25	13.0
There are written infection control policies and procedures available.	Yes	207	96.3
	No	8	3.7
Recapping needles before disposing	Yes	120	55.8
	No	95	44.2
Ever had contact with blood, liquids or puncture wounds	Yes	144	67.0
	No	71	33.0
What are the IPC measures adopted after being exposed to blood/stick injury? (n=144)	Taking PEP	56	39.0
	Cleaning by alcohol	42	29.2
	Washing with water	74	51.3
Giving health education to the patients about HCAIs	Yes	197	91.6
	No	18	8.4
The hospital has a competency-based hand hygiene training program.	Yes	206	95.8
	No	9	4.2
Supplies necessary for adherence to hand hygiene are readily accessible in patient care areas.	Yes	209	97.2
	No	6	2.8

Source: Primary data(2022)

Table 6. Multivariate analysis on factors associated with IPC practices

Variables	Items	Crude OR (95%CI)	P-value	Adjusted OR (95%CI)	P-value
Age category	18-35 years	Ref.		Ref.	
	36-45 years	2.1(1.78-5. 93)	0.412	0.14(0.03-3.22)	0.342
	> 45 years	2.7(1.9-5.07)	0.017	3.1(2.16-5.25)	0.024
Level of education	Primary	Ref.		Ref.	
	Secondary	2.9(1.46-7.98)	0.079	2.5(1.25-7.89)	0.061
	University	2.4(1.19-6.89)	<0.001	3.3(1.56-7.56)	0.035
Work experience	<5 years	Ref.		Ref.	
	5-10 years	3.1(1.92-4.89)	<0.001	2.9(1.37-5.45)	0.003
	>10 years	2.1 (1.37-3.27)	0.001	1.2 (0.69-1.97)	0.561
Level of knowledge	Low	Ref.		Ref.	
	High	2.6(1.48-6.98)	0.031	2.7(1.68–7.95)	0.045
Attitude	Negative	Ref.		Ref.	
	Positive	2.5(1.70-7.44)	0.014	2.3(1.36-7.72)	0.017

Source: Primary data(2022)

to patients, 95.8 percent confirmed that their hospitals had a competency-based hand hygiene training program, and 97.2 percent acknowledged that supplies needed for hand hygiene adherence are readily available in their patient care areas. (Table 5)

Overall Practice Score

The 'practice' section included ten (10) IPC-related questions that were graded individually for each respondent. If a respondent gave the correct answer, they received two points. If he/she gave a false response, he/she received a zero. Each respondent received an overall practices score by adding the scores from the ten practice-related questions. According to the research findings presented in Table 3, 63.3 percent of respondents had "good practice" towards IPC, while 36.7 percent had "poor practice." The overall mean practice score was 11.8 (SD = 2.1). The minimum score was 10 and the maximum score was 20.

Factors Associated with IPC in Three Hospitals of Karongi District

Age, educational level, work experience, level of knowledge, and attitude toward IPC practices were factors that were significantly associated with IPC practice in the bivariate analysis. However, in the multivariate analysis, all variables were found to be meaningfully associated with IPC practice (Table 6). HCWs over the age of 45 were about 3.1 times more likely to engage in infection prevention activities than those between the ages of 18 and 35 (AOR = 3.1; 95 percent CI = [2.16-5.25]; p=0.024). In terms of educational level, HCWs with a university level were 3.3 times (AOR = 3.3;95 percent CI = [1.56-7.56]; p=0.035) more likely to practice Infection prevention activities as medical staff with diplomas(Table 4.9). Furthermore, HCWs with 5 to 10 years of experience had a

higher likelihood of achieving infection prevention practices/activities than those with less than five years of experience (AOR = 1.7; 95 percent CI = [1.37-5.45]; p=0.003) (Table 6).

According to multiple regression analysis, the odds of having good practice towards IPC were 2.7 times higher (AOR=2.7; 95 percent CI: [1.68-7.95]; p=0.045) among HCWs with a high level of knowledge towards IPC compared to those with a low level of knowledge, and the odds of having good practice towards IPC were 2.3 times higher (AOR=2.3; 95 percent CI: [1.36-7.72]; p=0.017) among those with.

Discussion

According to this study, 78.6 percent of healthcare workers are knowledgeable about infection prevention and control. This result indicates that a high proportion of medical staff in the three hospitals studied have infection prevention and control skills, consistent with similar and related studies in Zambia (74.4 percent) [29]. The study finding was better than studies done in Nigeria(65%) [30],Nepal (22%) [31], Palestine (53.9%) [32] and Iran hospital (57%) [33]. Due to a difference in knowledge scores; despite being lower than studies done in Bahirdar city, 84.5 percent [27] and in Ethiopia (84.7%) [34], Addis-Abeba [26] and Dessie Referral Hospital (95.7%) [28]. This difference could be attributed to a lack of in-service training, a small sample size, or socio-demographic differences.

According to the findings of this study, approximately three-quarters (79.5 percent) of the respondents had positive attitudes toward IPC. This could be because the study was conducted during a novel coronavirus pandemic (COVID-19), during which people were more sensitive to IPC measures. Though, a similar study found a higher percentage (93.4 percent) of HCWs with a positive attitude toward IPC [22]. Another study found that a lower percentage (55.6 percent) of HCWs had a positive attitude toward infection prevention [27]. The differences observed in these studies could be attributed to differences in the study setting and study participant composition. A positive attitude towards IPC is preferred as it is believed to lead to best practices that are protective for healthcare workers.

According to a study directed in an Egyptian hospital, 63.3 percent of healthcare workers practice good infection prevention and control activities (67.1 percent) [35] and in Bahirdar city(64.2%) [27]. However, this is much lower than studies conducted in Dessie referral hospital, Ethiopia (87.5%) [28], Nepal (73.0%) [31] and Palestine (91.1%) [32]. This difference could be attributed to differences in infection prevention knowledge, methodology, sample size, socio-demographic differences, a lack of education and infection prevention services, and professional noncompliance with infection prevention.

In this study, age is one of the significant factors in infection prevention and control practice. It showed that health workers older than 45 years were about 3.1 times more likely to practice infection prevention and control activities than those who were 1835 years old. This is comparable with other studies conducted in Northwest Ethiopia [36] and in Wolaitta SodoOtona teaching and referral hospital [22]. This could be due to the fact that years of service increase with age, this, in turn, improves their performance over time.

In terms of educational attainment, higher levels of education were positively associated with better infection prevention intervention implementation than lower levels of education. This finding contradicts a study conducted in the Amhara region [36]. The difference could be due to sampling size, differences in study participants, or misreporting or self-reporting. This may also be due to the fact that higher educated healthcare workers may have acquired essential information, leading to the acquisition of infection prevention and control courses and trainings [30,32].

Furthermore, this study found that work experience is a important factor in the practice of infection prevention and control activities. According to a study conducted in Bahirdar, healthcare workers with 5 to 10 years of experience were 1.7 times more likely to engage in infection prevention and control activities [27]. This could be because healthcare workers are continually

exposed and gaining experience as the number of years of practice increases.

In addition, up-to-date knowledge and skills in infection prevention and control can increase healthcare professionals' confidence in adhering to suggested procedures and available services. In this study, healthcare workers with a high level of knowledge about IPC were 2.7 times more likely to practice IPC than those with a low level of knowledge. This is consistent with the findings of studies conducted in Northwest Ethiopia [36] and Edo State, Nigeria [30]. This could be due to the fact that those who have never received training or consulted various sources of information on IPC are less likely to receive updated information, making it difficult to keep up with infection prevention knowledge.

Conclusion

The specific objectives of my study were to determine and assess the knowledge, attitudes and practices of health care professionals regarding infection prevention and control in three hospitals of Karongi district and to identify factors associated with infection prevention and control practices in three hospitals of Karongi district are connected. This study revealed that most of respondentswere aware of IPC and its advantage to their health. Unfortunately, some respondents revealed low level of knowledge (21.4%), negative attitude (20.5%) and poor practice (36.7%) towards IPC activities.Among factors associated with IPC were: level of education, work experience, level of knowledge towards IPC and attitude towards IPC. The Ministry of Health and Hospitals, along with other stakeholders, have to reinforce awareness on IPC activities in hospitals facilities; to continue to support health facilities to organize regular trainings for HCWs on IPC.

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