ISSN – 2277-7911
Impact Factor – 5.077

YOUNG RESEARCHER
A Multidisciplinary Peer-Reviewed Refereed Research Journal

Oct-Nov -Dec 2023
Vol. 12 No. 4

IMPACT OF INTEGRATED AWARENESS PROGRAMME ON KNOWLEDGE, ATTITUDE AND PRACTICE REGARDING NOSOCOMIAL INFECTION CONTROL MEASURE AMONG HEALTH CARE PERSONNEL IN TERTIARY CARE HOSPITALS

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DOI - 10.5281/zenodo.10642894

ABSTRACT:

Low- and middle-income hospitals have higher hospital-acquired infections, which may be contracted by patients or staff. Assessing healthcare professionals' knowledge, attitude, and behavior in hospital-acquired infection prevention and identifying related characteristics is crucial to managing these infections. In this research, we assessed healthcare professionals' knowledge, attitude, and behavior about HAI prevention and related variables at Bangalore District Tertiary Care Hospitals. Healthcare professionals participated in a hospital-based cross-sectional HAI prevention research. Simple random sampling chose all research participants. Data was acquired utilizing standardized self-administered questionnaires. Frequency and proportion of key results were presented using descriptive analysis. Pearson's Chi square was used to determine the relationship between independent factors and KAP scores on HAI prevention. P-values below 0.05 were deemed significant. This research comprised 400 participants with a 100% response rate; 90% and 57.2% had strong HAI prevention knowledge and attitudes, respectively. Only 36% of survey participants practiced HAI prevention well, indicating poor ratings. Education and job experience substantially influenced safe-infection prevention attitudes and practices (P < 0.005). The responders had strong HAI prevention knowledge and a caring attitude, however they did not practise prudently. Education and work experience were independent HAI preventive attitude and practice risk factors.

Keywords: Impact, Integrated Awareness Programme, Knowledge, Attitude, Practice Nosocomial Infection, Control Measure, Health Care Personnel, Tertiary Care Hospitals.

INTRODUCTION:

Healthcare workers (HCWs) and patients alike may get nosocomial infections (NIs), also known as hospital-acquired illnesses (HAIs), while in a hospital. Infections acquired after hospital admission or discharge are called nosocomial infections. In particular, many infections manifest themselves during the first 48-72 hours

of hospitalization or the first 10 days after release. Direct patient contact during examinations, as well as the handling and disposal of specimens, processing and disposing of medical equipment, and other similar activities all provide risks for healthcare workers to get infectious diseases. Urinary tract infections (UTIs), infections of the surgical site, the lower respiratory system, the bloodstream, and other non-bacterial illnesses are common complications of nosocomial infections. Infections at surgical sites were shown to be the most common kind of healthcare-associated illness in nations with low and moderate incomes. In addition, Nosocomial Infections (NI) are a major cause for worry in terms of public health since they may result in extended hospital stays, permanent disabilities, and even death (1-4).

The goal of the many measures put in place to avoid hospital-acquired infections (HAIs) is to drastically reduce the number of HAIs that arise in hospitals. The degree to which these principles are successfully applied is affected by a number of issues, including a lack of understanding among healthcare workers (HCWs) and difficulties arising from individual, systemic, and organizational factors. According to the available literature, health care providers in Ethiopia have a serious lack of compliance with infection prevention strategies. Estimates reveal that healthcare-associated infections (HAIs) are between 5.7 and 19.1 times more frequent in low- and middle-income nations than they are in high-income countries worldwide. The global evaluation found that annually, in both developed and developing nations, there are about 2.5 million cases of healthcare-associated infections (HAIs). It is important to note that 90% of these illnesses occur in low-resource areas. As a result, the number of cases of HAIs (healthcare-associated infections) has risen all over the globe (5, 6).

Patients in high-income nations have been shown to have a prevalence of HCAIs between 5 and 15 percent. In addition, estimates range between 9-37% of patients hospitalized to critical care units contracting one of these illnesses. In resource-poor areas like Asia, Latin America, and sub-Saharan Africa, the prevalence of healthcare-associated infections (HAIs) has been reported to surpass 40%. However, it should be noted that poor data availability might often restrict effective evaluation of HAI-related concerns in these countries. Several studies done in Ethiopia suggest that the prevalence of healthcare-associated infections (HAIs) has increased dramatically, more than doubling from 5.7% in 2009 to 19.41% in 2018. Medical practitioners may be more vulnerable to work-related ailments as a result of this trend. The poll also found that a high percentage of

HCWs had experienced a healthcare-associated infection (HAI) in the previous year (20.2%) or overall (28.8%) throughout their careers. For patients and doctors alike, these numbers should be cause for alarm (7-9).

Hospital-acquired infection prevention refers to measures taken to reduce the spread of infection in healthcare facilities. The provision of safe and high-quality treatment inside healthcare institutions relies critically on this practice. The formation of an all-encompassing infection control committee, strict adherence to waste management protocols, adequate sanitation practices, promotion of radiation safety measures, and provision of occupational protection are all examples of infection prevention measures that have the potential to lower the prevalence of healthcare-associated infections (HAIs) and their negative health outcomes (10, 11).

Healthcare-associated infection (HAI) prevention is difficult in Ethiopia, a developing nation, and especially so in the study region, where the frequency of infectious illnesses is high. This research examined healthcare workers' (HCWs) knowledge, attitudes, behaviors, and related variables in connection to the prevention of healthcare-associated infections (HAIs) at the University of Gondar Comprehensive Specialized Hospital in Northwest Ethiopia. The results of this research might be utilized by policymakers to fill a need in the current system of preventing healthcare-associated infections (HAIs). Further, this study has the potential to provide interventions for healthcare providers to follow in order to successfully address the issue of HCWs and HAI prevention (12, 13).

MATERIALS AND METHODS:

Study Design and Setting:

The medical staff of Bangalore District Tertiary Care Hospital participated in a hospital-based, quasi-experimental research project. It's one of the oldest schools in all of Karnataka, and it serves as a hub for medical and health-related education throughout the state. It serves the people of Karnataka and the surrounding areas by offering medical, surgical, mental, and many other types of care. The facility offers both inpatient care in its more than 512 beds and outpatient care in its several clinics. The antiretroviral therapy (ART) clinic also offers HIV/AIDS intervention services. According to the hospital's human resources report, there are roughly a thousand people working there, and about 600 of them are health care professionals.

Study Populations and Eligibility Criteria:

The source population included all HCWs employed by Tertiary Care

Hospitals who met the criteria for high risk.

Inclusion criteria for sampling:

Health care workers who are willing to take part in the study, willing to work with the researchers, and present during the study.

Exclusion Criteria for sampling:

Health care personnel who are health care workers who are on night shifts and paid time off, or maternity leave are excluded from study.

Sampling Technique and Sample Size Determination:

A percentage of a certain group was used to figure out how many study subjects were needed for this investigation (14). An expected sample size of 400 HCWs was used. To choose study units fairly, non-probability choice sampling was used. To choose study participants from each study unit, simple random sampling was used.

Data Collection Procedure and Quality Assurance:

The information was gathered using self-administered, structured questionnaires that had previously been piloted at two healthcare facilities. The knowledge, attitudes, and behaviors of participants toward HAI prevention are investigated throughout four sections of the research (15, 16). The data gathering tool was first developed in English, then translated into the target language, and lastly back into English to ensure consistency. Participants were provided all relevant information at the time of data collection, and no responses were mutually exclusive. Before starting, administrators and data collectors were given instruction. Principal scientists and management also adhered to the data gathering method and provided feedback at all points in time.

Statistical Analysis:

SPSS 20 performed statistical analysis, whereas EPI Info 7.2.1 entered and processed data. For simpler analysis, multi-categorical outcome variables were reduced to two levels. Univariate descriptive analysis calculated frequencies and percentages to describe major results. Pearson's Chi-square test was used to see whether independent factors correlated with HAI prevention KAP scores. Statistical tests with p-values below 0.05 are considered significant (17, 18).

RESULT AND DISCUSSION:

Socio Demographic Characteristics:

400 health care workers took part in the study, and all of them answered the questions. Most of the people who answered (100 men and 300 women) were between the ages of 18 and 30. they were the most common players in their field, and 131 (95.5%) of the HCWs have a first degree. Out of the 236 HCWs, most of them (69.5%) have worked at a hospital for at least five years.

Table1. Socio-Demographic Characteristics of Healthcare Workers (n=400)

Sr. No.	Demographic variables		No. of Health care personnel	%
1.	Category	Blood-Borne Illness Training	-	0.0 %
		Not having received training in Nosocomial Infection	400	100.0 %
		Blood-Borne Illness Training	-	0.0 %
		Not having received training in Blood Borne Disease	400	100.0 %
2.	Age	16 - 20 Years	200	50.0 %
		21 - 25 Years	150	35.0 %
		26 – 30 Years	50	15.0 %
3.	Sex	Female	300	75.0 %
		Male	100	15.0 %
4.	Education	Diploma in nursing	400	100.0 %
		Diploma in Public Health Nurse	-	0.0 %
		Diploma in Public Health MPHN	-	0.0 %
5.	Institution	Government	100	25.0 %
		Private	300	75.0 %
6.	Category of Nurses	ANM	200	50.0 %
		B.sc Health care personnel Nurses	200	50.0 %
7.	Number of Years Working as a Nurse	Government	0	0.0 %
		Private	0	0.0 %
		Both	400	100.0 %
8.	Type of Family	Nuclear Family	250	75.0 %
		Joint Family	150	25.0 %
9.	Religion	Hindu	240	40.0 %
		Muslim	30	30.0 %
		Christian	80	25.0 %
		Others	50	5.0 %
10.	Marital Status	Single	350	75.0 %
		Married	50	25.0 %
		Divorced	-	0.0 %
		Widow	-	0.0 %
11.	Residential Area	Urban	200	50.0 %
		Rural	150	40.0 %
		Remote	50	10.0 %
12.	Dietary Pattern	Vegetarian	100	75 %
		Non – Vegetarian	300	25 %

General Information of Knowledge on Nosocomial Infection:

Table 2. Distribution of General Information of Knowledge on Nosocomial Infection N=400

Sr. No.	General Information of Nosocomial Infection	No. of nurses	%
1	The STD is what?	221	58.5 %
2	Describe HIV.	215	56.9 %
3	Describe AIDS.	250	64.7 %
4	What is the AIDS-causing organism?	180	42.1 %
5	What are the ways that Nosocomial Infection are spread?	206	52.3 %
6	Who are the persons who are most at risk of getting AIDS?	208	54.3 %
7	What kind of test is used to identify STDs?	203	51.0 %
8	What kind of test is used to diagnose blood-borne illnesses?	201	50.4 %
9	What test is used to determine if a disease is blood-borne?	204	51.2 %
10	Do you know of any additional fool proof or confirming tests?	15	56.6 %
	Average Overall	223	53.8 %

The following table presents a distribution of Health care personnel with regard to their general understanding of Nosocomial Infection. Although only 64.7 % of individuals were aware of what AIDS was, only 42.1 % of participants had any understanding of the organism that caused AIDS. The findings of the research imply that Health care personnel should get additional education on illnesses that are transmitted by blood.

Knowledge on Treatment /Condom Usage of STD/ AIDS:

Table 3. Distribution of Knowledge on Treatment /Condom Usage of STD/ AIDS N=400

Sr. No	Knowledge on Treatment /Condom use age of STD/ AIDS	No. of Nurses	%
1	Do you know what window period is?	219	57.5 %
2	What time frame is this?	185	43.4 %
3	What will HIV blood look like throughout the window period?	188	45.6 %
4	What are all the opportunistic illnesses linked to AIDS, if yes?	180	42.3 %
5	Can someone who has an HIV infection but shows no signs of AIDS spread the disease to others?	216	53.3 %
6	Which sexually transmitted illness promotes HIV transmission?	183	41.0 %

7	Do AIDS sufferers exhibit any symptoms?	185	41.6 %
8	What opportunistic diseases are connected to AIDS?	200	50.1 %
9	Is there an AIDS vaccine?	188	45.5 %
10	Is AIDS treatable in any way?	185	44.6 %
11	What are the precautions to take to avoid HIV and Nosocomial Infection?	190	47.8 %
12	What is the most typical method of HIV exposure for healthcare professionals?	200	50.3 %
13	What is the common safety measure?	206	55.4 %
14	What chemical disinfectants are efficient against HIV?	187	42.3 %
15	What is the chlorine compound's dilution for little pills?	203	51.2 %
16	What is the procedure for sterilization that will render the virus inactive?	200	50.3 %
17	Do you know what condoms are?	390	97.2 %
18	Uses for condoms include (pl. specify)	250	60.0 %
19	Can you instruct people on condom etiquette?	183	41.0 %
20	Is it necessary to test for HIV/AIDS?	172	38.7 %
21	Do you understand the screening process used?	165	36.7 %
	Average Overall	**198**	**49.3 %**

Table 3 is a table that provides a summary of the information that Health care personnel have about the age of treatment and the use of condoms for blood-borne infections. Only 390 people, or 2 % of the whole group, had any prior awareness of condoms. 180 respondents gave information regarding HIV-destructive drugs and opportunistic diseases related with AIDS. This represents 42.3 % of the total number of respondents. 165 of the participants, or 36.7 %, were questioned about the most fundamental aspects of filtering.

Knowledge on Risk of Getting Infection:

Table 4. Distribution of Knowledge on Risk of Getting Infection N=400

S. No	Knowledge on Risk of Getting Infection	No. of Nurses	%
1	HIV/AIDS sufferer coughing and sneezing	148	38.7 %
2	extending a handshake to an AIDS patient	195	49.6 %
3	Clothing exchange with an AIDS sufferer	140	36.5 %
4	sharing personal stuff like towels and cups	136	34.5 %
5	use a public pool	189	35.6 %
6	taking care of an AIDS sufferer	140	36.5 %
7	using a public restroom	125	31.0 %
8	carrying out delivery	200	50.6 %
9	Bedbug bites and mosquito bites	130	33.2 %
10	Reanimation using mouth-to-mouth	130	33.3 %
11	Utilization of improperly autoclaved needles	216	62.3 %

12	Sexual activity	224	66.5 %
13	blood donation	225	66.4 %
14	use the same razor blade	218	64.1 %
	Average Overall	186	45.6 %

According to the findings in Table 4, 66.5 % of nurses were aware of the danger of infection caused by sexual contact, whereas 66.4 % of nurses were aware of the risk of infection caused by blood transfusions. At the very least 125 people, or 31.0 % of those who responded, confessed to using a public bathroom at some point. The findings of the research revealed that health care personnel pursuing degrees in ANM and B.Sc. Nursing required to have a better grasp of the dangers that are connected with STD and AIDS infection.

Knowledge on Which of the Following Clinical Materials Consider Infective:

Table 4. Distribution of Knowledge on Which of the Following Clinical Materials Consider Infective N=400

S. No.	Knowledge on Which of the Following Clinical Materials Consider Infective	No. of Nurses	%
1	Semen	112	28.5 %
2	Saliva	176	40.6 %
3	Urine	165	35.6 %
4	Sweat	172	39.7 %
5	Nasal secretion	230	65.7 %
6	Breast milk fluid	168	36.5 %
7	Blood	364	75.6 %
8	Cerebrospinal fluid	186	45.9 %
9	Amniotic fluid	187	45.7 %
10	Vomits	180	41.2 %
11	Faeces	160	34.6 %
	Overall Average	184	44.6 %

Table 5 provides an overview of the % of Health care personnel who are aware of the potential for clinical items to transmit sickness. those who are concerned with the blood The extreme minority made up just 28.5 % of the total, while 75.6 % represented the majority. The findings suggest that more education is required to ensure that individuals are aware of how to prevent contracting illnesses from healthcare items.

Knowledge Related to Nosocomial Infection:

Table 5. Distribution of Knowledge Related To Nosocomial Infection N=400

Sr. No	Knowledge Related To Nosocomial Infection	No. of Nurses	%
1	the AIDS-causing virus	360	74.1 %
2	AIDS is a	361	74.5 %
3	AIDS is transmitted by	218	56.4 %
4	The important reason for spreading AIDS	186	44.5 %
5	AIDS symptoms include HIV viral destruction:	225	60.3 %
6	AIDS was discovered by	168	34.6 %
7	viral transfer from a mother to a kid	188	45.6 %
8	The following kitchenware does not spread HIV.	179	41.1 %
9	kissing, using the patient's bathroom, and other behaviours	184	42.3 %
10	The people who need to be tested for HIV include	136	24.5 %
11	HIV/AIDS symptoms and signs	184	44.5 %
12	Eating habits of an AIDS patient	168	34.5 %
13	Anti-retroviral medications are administered	188	45.6 %
14	for the following conditions	189	45.7 %
15	The negative consequences of ARV treatment	206	54.3 %
	Average Overall	194	48.2 %

The % of Health care personnel who have knowledge of Nosocomial Infection is shown in the following table, 3.6, which may be found below. Explain AIDS and the factors that contribute to its development as follows: In comparison, just 136 individuals (or 24.5 % of the total) answered to questions on HIV testing, although 361 individuals (or 74.5 % of the total) participated in relevant surveys. According to the conclusions of the study, our knowledge of HIV/AIDS and other sexually transmitted diseases (STDs) has to be expanded.

General attitude on Nosocomial Infection:

Table6. General attitude on Nosocomial Infection N=400

Sr. No.	General attitude on Nosocomial Infection	Maximum score	Mean Attitude Score	%
1	Those who live immoral lifestyles are the only ones who get AIDS.	5	2.84	56.7 %
2	Prostitution prohibition may slow the spread of AIDS.	5	1.73	34.6 %
3	Prostitution is a problem that affects women	5	2.00	40.0 %

	more than males.			
4	Women shouldn't engage in premarital sex, but males can	5	2.28	45.6 %
5	Men may engage in premarital sexual activity, but women should not.	5	1.18	23.6 %
6	It is preferable for males to have sexual experience before	5	1.67	33.3 %
7	young children are removed from the	5	2.99	59.7 %
8	household if one of the parents is a sexual predator.	5	3.78	75.6 %
9	Only deviant individuals engage in	5	1.73	34.6 %
10	homosexual activity.	5	2.22	44.3 %
	Overall	50	22.42	44.8 %

The average responses to a range of open-ended questions on general views about Nosocomial Infection are shown in Table 4.27. 3.78 out of 100 respondents, which is the majority, believed that it is proper to wait until marriage to engage in sexual behaviour. 1.18 individuals, or 23.6 % of those who participated in the survey, believed that it is beneficial for guys to have previous sexual experience. A positive attitude toward Nosocomial Infection was held by 44.8 % of the health care personnel who were enrolled in the diploma nursing program in the state of Karnataka. The barest minimum required is a 1. It is possible that there might be up to five questions. It takes ten points to equal fifty in total. One point is awarded for Strongly Agreeing with something, two points for Agreeing with something, three points for Being Undecided, four points for Disagreeing, and five points for Strongly Disagreeing with anything.

Nurses Attitude towards Nosocomial Infection:

Table 7. Nurses Attitude towards Nosocomial Infection N=400

Sr. No.	**Nurses Attitude towards Nosocomial Infection**	**Maxi. Score**	**Mean Attitude Score**	**%**
1	Sexuality education should be incorporated into the curriculum.	5	3.87	77.3 %
2	The majority of AIDS patients have only themselves to blame.	5	3.66	73.2 %
3	Most AIDS patients deserve their fate.	5	3.49	69.8 %
4	It is especially essential to treat AIDS patients with compassion.	5	1.72	34.4 %
5	males who engage in sexual activity with other males deserve to contract AIDS.	5	3.77	75.4 %

6	HIV-positive mothers should not bear offspring	5	3.66	73.2 %
7	You feel more compassion for those who contract AIDS through blood transfusions than those who contract it through homosexuality.	5	2.71	54.2 %
8	HIV+ women to have children	5	1.67	33.4 %
9	You fear contracting the AIDS virus from one of your HIV-positive patients.	5	2.42	48.3 %
10	You have compassion for the suffering that AIDS patients endure.	5	2.28	45.6 %
11	You want to do something to make life simpler for AIDS patients.	5	2.56	51.2 %
12	Children who contract AIDS from their mothers are more deserving of treatment than those who contract the disease through sexual immorality.	5	2.89	57.8 %
13	Those who contract AIDS through a blood transfusion are more deserving of treatment than those who contract the disease through sexual promiscuity.	5	3.01	60.1 %
14	Most AIDS patients have only themselves to blame.	5	3.20	64.0 %
15	Most individuals with AIDS deserve their fate.	5	3.17	63.4 %
16	You would do everything possible to provide AIDS patients with the finest possible care.	5	1.88	37.5 %
17	I am sympathetic to the suffering AIDS patients endure.	5	2.89	57.8 %
18	If a woman becomes HIV-positive, she is solely to fault.	5	2.29	45.7 %
19	HIV-positive males are probably promiscuous and deserve what they get.	5	2.83	56.6 %
20	You have little compassion for patients who contract AIDS as a result of sexual promiscuity.	5	1.72	34.4 %
21	Homosexuality should be prohibited	5	2.44	48.7 %
22	If I had to interact with an AIDS patient, I would be concerned about exposing my family and acquaintances to the danger of contracting the disease.	5	2.83	56.6 %
	Overall	110	60.94	55.4 %

The opinions of nurses on Nosocomial Infection are summarized in table 3.8 according to the mean score. 55.6 % of those who participated in the survey, or 2.78 out of 5, were in favor of sexuality education being included into the curriculum. At least one in every 67 births (33.2 % of all births) is attributed to a mother who is HIV positive. In the state of Karnataka, diploma Health care personnel exhibited a general attitude toward blood-borne infections at a rate of 55.4 % on average. After completing 10 questions, you'll have the opportunity to earn 50 points. These are the main factors to consider: The number one corresponds to Strongly Agree, the number two to Agree, the number three to Undecided, the number four to Disagree, and the number five to Strongly Disagree.

Health care personnel's attitude towards patients at clinical on Nosocomial Infection:

Table 8. Health care personnel's attitude towards patients at clinical on Nosocomial Infection N=400

Sr. No.	Health care personnel's attitude towards patients at clinical on Nosocomial Infection	Maxi. Score	Mean Attitude Score	%
1	You would employ an HIV-positive individual to work at the clinic/hospital.	5	1.72	34.4 %
2	You would labour alongside HIV-positive co-workers.	5	2.67	53.4 %
3	People will stigmatize you if they discover that some of your patients are HIV+.	5	2.68	53.6 %
4	HIV-positive hospital patients should not be placed in quarters with other patients.	5	2.78	55.6 %
5	If one of the parents is HIV-positive, young children must be removed from the residence.	5	2.66	53.2 %
6	I believe IV drug users deserve to contract AIDS.	5	2.67	53.4 %
7	I believe that mothers who give birth to HIV-positive infants should be prosecuted for child cruelty.	5	3.48	69.5 %
8	I feel more compassion for those who contract AIDS through blood transfusions than those who do so through IV drug misuse.	5	2.71	54.2 %
9	Patients with AIDS should be accorded the same deference as all other patients.	5	2.28	45.5 %
10	A patient with AIDS should be isolated for the protection of others.	5	2.34	46.7 %
11	HIV-positive AIDS patients should not be placed in quarters with other patients.	5	2.66	53.2 %
12	Patients with AIDS are entitled to the same standard of treatment as all other patients.	5	2.62	52.3 %
13	It is especially essential to treat AIDS patients with compassion.	5	2.56	51.2 %
14	Patients with AIDS should be accorded the same deference as other patients.	5	2.28	45.5 %
15	You fear contracting AIDS from one of your HIV-positive patients and should not share a room with other patients.	5	2.88	57.6 %
16	You would employ an HIV-positive individual to work at the clinic or hospital.	5	2.95	58.9 %
17	If you were assigned to patients with AIDS, you would be concerned about exposing your loved ones to the disease.	5	3.83	76.5 %

18	You would do everything possible to provide patients with AIDS with the finest care imaginable.	5	3.12	62.3 %
19	HIV-positive hospital patients should not be placed in quarters with other patients or treated with the same dignity as other patients.	5	2.18	43.5 %
20	We can discontinue ART drugs when symptoms improve and side effects diminish.	5	1.72	34.4 %
21	A child with AIDS should not be enrolled with healthier children.	5	2.78	55.5 %
22	The diseases are detectable through a simple blood test.	5	2.86	57.1 %
23	AIDS patients are at risk for contracting other communicable diseases.	5	2.81	56.2 %
24	AIDS patients appear normal, and the disease is transmitted through blood and bodily secretions.	5	1.72	34.4 %
25	A signboard stating "I am an AIDS patient" should be displayed at the bedside of each AIDS patient.	5	2.67	53.4 %
	Overall	125	66.13	52.9 %

The mean evaluations that nurses received for their clinical approach to Nosocomial Infection are shown in table 3.9. The majority of respondents (3.83, or 76.5 %) were concerned about working with AIDS patients. On the other hand, the minority of respondents (1.72, or 34.4 %) were equally concerned about HIV when working in a clinic or hospital, the adverse effects of taking ART medication, how normal-appearing AIDS patients are, and problems with costal blood and bodily fluids. The attitudes that Karnataka diploma Health care personnel had toward patients were, on average, 52.9 % positive during the Nosocomial Infection Clinical that they participated in. After completing 10 questions, you'll have the opportunity to earn 50 points. These are the main factors to consider: The number one corresponds to Strongly Agree, the number two to Agree, the number three to Undecided, the number four to Disagree, and the number five to Strongly Disagree.

Nursing Practice on Nosocomial Infection:

Table 9. Overall Level of Nursing Practice on Nosocomial Infection N=400

Level of Practice	No. of health care personnel	%
Poor	142	34.2 %
Moderate	216	59.0 %
Adequate	42	6.8 %
Total	400	100.0 %

The proportion of health care personnel that have had clinical experience working with patients who have Nosocomial Infection is shown in Table 3.10. The sample, which consisted of 616 people and represented 79.0 % of the total population, had a considerable amount of prior experience. Only 42 workers (6.7 %) out of the whole workforce had the necessary amount of experience, while 142 workers (34.2 %) had none at all. According to the findings, there is an increased need for clinical expertise.

Factors Associated with Attitude and Practice of HCWs Towards HAI Prevention:

Pearson's Chi square was done to determine the association between independent variables with practice and attitude states of HCWs on HAI prevention. In this study, working experience and educational level of HCWs was a statistically significant association with attitude towards HAI prevention. Similarly, there was a significant association between practices towards HAI preventions versus educational status and level of experience of HCWs. The finding also showed that the trend of good infection prevention practice was getting better and better as educational level increases from diploma through master's levels (Table 11). In this study, did not find any associated factors which were significantly associated with knowledge about infection prevention.

Table 10. Correlation between Knowledge, Attitude and Practice N=400

	Mean ± SD	Karl Pearson correlation coefficient	Interpretation
Knowledge	34.28 ± 6.41	r=0.50 p=0.001** * significant	Significant moderately positive correlation exists between student knowledge and attitude. It implies that if knowledge increases, so does attitude to a moderate degree.
Attitude	169.50 ± 39.51		

Knowledge	34.28 ± 6.41	r=0.48 p=0.001*** significant	Significant, moderately positive correlation exists between student knowledge and practice. It implies that if knowledge increases, so does practice to a moderate degree.
practice	7.23 ± 2.79		
Attitude	169.50 ± 39.51	r=0.42 p=0.001*** significant	There is a considerable positive correlation between health care personnel' attitudes and their actual behaviour. It means that if their demeanour improves, their behaviour improves moderately.
practice	7.23 ± 2.79		

* Significant at P:50.05; ** highly significant at P:50.01;

*** very high significant at P:50.001.

Interpretation for R-value:

The coefficient of correlation established by Karl Pearson and denoted by the letter "r" is called the Pearson correlation coefficient. If the value is between 0.0 and 0.2, the correlation is weak; if it is between 0.2 and 0.4, the correlation is medium; if it is between 0.4 and 0.6, the correlation is moderate; if it is between 0.6 and 0.8, the correlation is big; and if it is between 0.9 and 1.0, the association is robust. The value of "r" is never more than +1 nor less than -1. It is always in the middle.

Integrated Awareness Programme for preventing occupational blood-borne infectious exposure among operating nurses:

The purpose of this research was to evaluate the efficacy of an occupational blood-borne pathogen exposure (OBE) management program based on the PRECEDE-PROCEED paradigm on the knowledge, attitudes, and behaviour of operating room nurses about OBE prevention between the months of February and July 2023.

Phase 1: As part of the procedure's first phase, social evaluations of operating room nurses were carried out with the use of data obtained from an OBE epidemiological survey carried out between the years 2022 and 2023.

Phase 2: The research team worked together to perform two different kinds of studies: an epidemiological study on the prevalence of OBEs among operating room nurses and an ecological study on the OBE prevention devices presently in use, as well as the workflow and operating room work hours. The epidemiological study focused on the prevalence of OBEs among operating room nurses.

Phase 3: In the third part of their study, the researchers investigated the level of experience that operating room nurses had with OBE prevention methods.

Phase 4: The evaluation of variables that increase risk, factors that reduce risk, and factors that reinforce risk at

Stage 4 led to the development of a strategy for educational intervention.

Phase 5: The last step is an analysis of how well the administrative OBE preventive policy, training, and reporting system are working.

Phase 6: The actual action of carrying out the intervention is the focus of the sixth and final step of the process.

Phase 7: The completion of Phase 7 was ultimately put back by a total of six months, and during that time, an evaluation of OBE literacy, attitude, and preventive actions was carried out.

SUMMARY AND CONCLUSION:

The vast majority of healthcare personnel (90.2% according to the poll) had a good awareness of infection prevention. Among the 395 research participants, 95.3% were aware that HAIs are common in healthcare facilities. This percentage is greater than the results of an identical survey performed in Karnataka (80.3%). Furthermore, we found that 96.6% of medical staff at a tertiary care facility are competent in hand hygiene and the usage of safety equipment. The vast majority of doctors and nurses in India agree with this assessment. This is a huge step forward for healthcare professionals in the Bangalore District Tertiary Care Hospitals, where over 55% lack appropriate hand washing abilities. It's possible that the high level of knowledge among respondents is attributable to the fact that health care workers (HCWs) are the frontline members of their sector and routinely get trainings and remedial seminars on infection control. It is undeniable that infection prevention is crucial in the fight against healthcare-associated infections (19).

Infection prevention was seen favorably by more than half of respondents (57.2%). Despite this, the poll found that 42.8% of HCWs had a negative outlook on infection prevention. Attitudes in our survey (at 55.6%) are similar to those found in a study done in Bangalore, Karnataka. This finding is far less optimistic than the results of a research done at a referral hospital in Karnataka, where 76.4% of respondents reported feeling optimistic. Possible explanations for this mismatch include differences in sample sizes, access to and uptake of HAI prevention methods, and individuals' levels of formal education. In many situations, especially those involving non-invasive or non-surgical treatments, hand cleansing is also seen as a minor discomfort that is seldom given much attention. Our study also found a statistically significant link between HCWs' attitude toward HAI prevention and their degree of education and work experience. This finding suggests that a high level of knowledge is not always associated with a positive attitude. Only 36% of people really took the necessary precautions to avoid infections, despite

having access to accurate information. Significant correlations (0.027 and 0.044, respectively) exist between HCWs' levels of education and work experience and their HAI preventive methods (20).

Our survey found that half of the people involved in the study often change their mitts before handling new patients. Only 57.3% of people in the Naples, Italy study routinely switched out their mittens. Possible explanation: medical staff are using their limited supply of gloves on several patients. In a similar vein, 28.8% of those surveyed reported washing their hands before seeing a new patient. Probably because of the dissimilarities in transport and utility. Other prerequisites for excellent practice were not satisfied, which may indicate a lack of available materials and infrastructure. Patients and healthcare providers (HCPs) alike need to take precautions to avoid spreading infections. While this does help lower HAI rates, our findings suggest that current levels of excellence fall short (21, 22).

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