

	1-5 years	10(13.3)	65(86.7)		
	>5 years	22(56.4)	17(43.6)		
Level of knowledge	Low	18(19.1)	76(82.9)	35.445	<0.001
	Moderate	1(2.4)	41(97.4)		
	high	26(54.2)	22(45.8)		
Level of attitude	Negative Attitude	19(16.2)	98(83.8)	39.065	<0.001
	Neutral attitude	4(11.8)	30(88.2)		
	Positive attitude	22(66.7)	11(33.3)		

Table 6 indicates that after adjustment from other variable, only level of knowledge and attitudes towards nosocomial infection prevention and control remained significantly associated with practices regarding nosocomial infection prevention and control.

It was noted that the odd of having good practices increases with knowledge. For instance participants with moderate level of knowledge [AOR=181.785, 95%CI: 5.498-6010.666, p<0.05] were more likely to have good practices.

It was noted that the odd of having good practices increases with attitudes. For instance, participants with neutral attitudes [AOR=15.000, 95%CI: 4.214-53.399, p<0.001] were more likely to have good practices.

Table 6: Multivariate analysis of factors associated with practices regarding nosocomial infection prevention and control

	Practice score	
	AOR (95%CI)	P-value
Age group		
<20 years	0.148(0.010-2.094)	0.157
21-29years	0.243(0.018-3.318)	0.289
30-39 Years	2.928(0.240-35.775)	0.400
40-49 Years	0.732(0.136-3.923)	0.715
> 50years	Ref	
Area of specialty		
Surgery	0.678(0.109-4.231)	0.678
Pediatrics	0.803(0.092-7.045)	0.843
Accidents and emergency	0.632(0.074-5.422)	0.676
Medical	Ref	
Educational level		
Enrollment	2.316(0.570-9.418)	0.241
Diploma	1.311(0.348-4.934)	0.689
Degree	Ref	
Working experience		
<1year	0.497(0.069-3.601)	0.489
1 year	0.505(0.066-3.885)	0.511
1-5 years	1.268(0.234-6.878)	0.783
>5 years	Ref	
Level of knowledge		

Low	38.569(1.835-810.783)	<0.05
Moderate	181.785(5.498-6010.666)	<0.05
high	Ref	
Level of attitude		
Negative Attitude	10.316(4.301-24.741)	<0.001
Neutral attitude	15.000(4.214-53.399)	<0.001
Positive attitude	Ref	

AOR: Adjusted odd ratio, 95% CI: 95% confidence interval

Table 7 indicates that 36.4 percent believe that healthcare associated infectious diseases can be avoided by isolation, 23.9 percent believe that healthcare associated infectious diseases can be avoided by appropriate sharp disposal, 21.6 percent believe that healthcare associated infectious diseases can be avoided by proper bed distance, and 20.5 percent assume that healthcare associated infections can be prevented by proper ward air conditioning. Finally, based on the findings, the participants' degree of practice in terms of hospital infection prevention and control acquired infections is good.

Table 7: Ways to reduce transmission of Hospital acquired infections

Items	Responses		Percentages if cases
	N	Percent	
Hand hygiene	130	23.0%	70.5%
Adequate protective gear	82	14.4%	44.3%
Proper sterilization	69	12.2%	37.5%
Proper shard disposal	42	7.8%	23.9%
Safe waste management	96	17.0%	52.3%
Proper bed spacing	40	7.0%	21.6%
Proper ward Ventilation	38	6.7%	20.5%
Isolation	67	11.9%	36.4%
Total	564	100.0%	306.8%

Source: Primary data (2021)

Discussion

In this study, 51.1 percent of participants were extremely informed about healthcare - associated infections, defined as handedness by a patient within 48 hours of admission to the hospital. 37.5 percent of respondents were well-informed, whereas 5.4 percent had no idea what surgery center infections were. Nursing staff, on the other hand, were found to be lacking in expertise in a comparable study conducted in Kawait by Raka et al, (2012). The discrepancy between the two studies could be attributable to the nurses' educational levels, as this study included nurses with greater levels of education (diploma, 48.9%, and bachelor, 21.6%) than those in the subsequent

research.

This is in line with research by (7), which found that the education cadre and numerous themes covered in ongoing professional development boosted nurses' awareness of HAI prevention and control. Although official nurse schooling provides the required knowledge on the prevention and management of Healthcare Associated Infectious diseases, ongoing education programs and conversation among nursing staff on the prevention and management of Healthcare Associated Infectious diseases is required to reevaluate and strengthen preventive measures.

Moreover, according to a study conducted among 65 nursing staff and some doctors in ICU and surgery divisions of five hospitals of different sizes in the Netherlands, hand hygiene was performed only when health workers suspected they had previously come into contact with the client and was done solely for personal safeguard. Top management also ignored it because there were no role models in the clinic and no clear proof that hand hygiene prevents cross contamination (8).

In this research, 83.0 percent of respondents said they always follow infection control procedures, while 17.0 percent said they follow them occasionally. This is in line with a research conducted by (9), which found that 96-99 percent of nurses wear gloves for at least 95 percent of their work time.

Though its majority of nurses (90.9%) answered that they do not recap syringes after use, 9.1 percent of the respondents indicated that they do. This is in contrast to a study undertaken by (10) in Arua district to assess the application of preventing infection in public hospitals and investigate determinants of hand hygiene among health professionals, which found significant levels of needle recap (34.4%) at public hospitals (10).

As per the report's results, 85.5 percent of respondents claimed that they always wear safety equipment during practice, whereas 12.5 percent stated that they do not wear protective gear during practice. This is consistent with a nationwide study done in England by Sudaram and (11), which indicated that 99 percent of HCWs habitually wore gloves in trauma situations, while only 18-22 percent utilized face masks and safety glasses(11).

Conclusions and Recommendation

The participants' knowledge was high, with the majority of them having adequate knowledge of how to prevent and control hospital-acquired infections. The nurses were well-versed in the prevention and treatment of hospital-acquired infections. Health-care facilities should issue

infection-control standards to all nurses and closely oversee them to ensure that they follow them. Health-care institutions should provide sufficient disposal materials for nurses, as well as opportunities for nurses to enhance their skills. Males should also be incentivized to teach nursing courses.

Limitation

The results of this study reflected the overview about the Knowledge, Attitudes and practices towards Nosocomial Infections prevention among Nurses who work at King Faisal Hospital. Thus the findings cannot be generalized to other universities.

Competing Interests

The authors declare that they have no competing interests.

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