Assessment of health care workers adherence to infection prevention and control practices at Keetmanshoop district hospital

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- The study found that most of the healthcare workers in Keetmanshoop District Hospital have **low adherence to IPC practices**. It also found that the sociodemographic factors and availability of resources did not have any significant effect on the adherence to IPC practices.
- The study concludes that the **main influencing factors to adherence** and practice of infection prevention and control at Keetmanshoop Hospital **were accessibility to resources, hand hygiene, facility IPC practices and individual IPC practices**

BACKGROUND

- Infection prevention and control (IPC) refers to policies and procedures aimed at reducing the risk of infection. As such, a lack of adherence with IPC among healthcare workers has several consequences, which includes increased bed occupancy and straining scarce hospital resources (WHO, 2016).
- Prevention and control of infections (IPC) is a scientific strategy and practical solution designed to avert patients and healthcare workers from possible harm caused by infections.
- Namibia created the infection Prevention and Control Guidelines, that aims at reducing HAI's and promote patient care for sound quality.
- The guideline highlights the infection prevention practice. These Guideline practices include, excellent hand hygiene, universal blood and blood fluid precautions, cleaning and disinfection, equipment/instrument sterilisation(MoHSS, 2015).
- Adherence to IPC ensures that Health care workers (HCWs) abides by the set rules, action and regulations as mentioned above (Otieno-Ayayo, Gichuhi, Kamau, Nyangena, 2015).

METHODS

The purpose of the study was to assess healthcare workers' adherence to infection prevention and control practices at Keetmanshoop district Hospital.

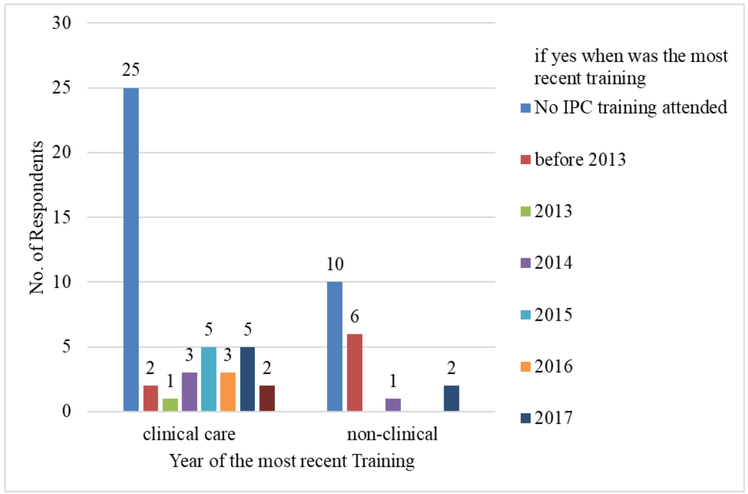
The results of the study were aimed at informing Ministry of Health and Social Services' management team on how infection prevention and control practices should be efficiently and effectively implemented.

The study also helps the ministry by highlighting the importance of infection prevention and control practices training in ensuring that health care workers adhere to infection prevention and control program and practices.

Using a quantitative descriptive correlational cross-sectional Survey, the study collected data from a stratified random sample of 65 doctors, nurses, cleaners and porters. The research instrument was a questionnaire tool developed by the researchers.

Data was analysed using the SPSS version 25 computer programme. Descriptive and Inferential statistics that included measures of central tendency, correlational matrix and a multiple linear regression were employed.

RESULTS



No.	Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	Gender	1.00																							
2	Age	0.02	1.00																						
3	Type of Worker	-0.09	-0.10	1.00																					
4	Experience	-0.08	.792**	-0.05	1.00																				
5	Profession	.273*	0.03	.816**	0.01	1.00																			
6	Department working in	.249*	0.21	0.01	0.16	.291*	1.00																		
7	highest education/training	-.275*	-0.01	.811**	0.05	.799**	0.07	1.00																	
8	Availability_Resources	0.14	0.01	.288*	-0.11	-.292*	-0.12	0.14	1.00																
9	Accessibility_Resources	-0.05	0.18	0.01	0.03	0.02	0.16	0.04	.398**	1.00															
10	IPC_Guidelines	-0.01	0.11	.335**	-0.02	.373**	-0.19	0.16	.488**	.423**	1.00														
11	IPC_Practices_PPE	-.297*	0.19	0.03	0.24	-0.11	-0.05	0.17	0.17	.385**	.350**	1.00													
12	IPC_Practices_Aseptic	0.01	-0.12	.699**	-0.08	.661**	-0.18	.496**	.600**	0.17	.546**	0.15	1.00												
13	IPC_Practices_Safety	0.01	-0.06	.793**	-0.03	.754**	-0.08	.627**	.509**	0.04	.455**	0.09	.826**	1.00											
14	IPC_Practices_Management	-0.06	-0.04	.796**	-0.11	.795**	-0.14	.638**	.498**	0.07	.464**	0.19	.751**	.825**	1.00										
15	IPC_Training	0.06	0.05	.379**	0.01	.436**	-0.22	.251*	.404**	0.22	.614**	0.17	.627**	.519**	.479**	1.00									
16	Disinfection_Equipment	0.01	0.03	.755**	0.01	.711**	-0.06	.592**	.344**	0.09	.362**	0.05	.716**	.722**	.792**	.451**	1.00								
17	lack of training on IPC	0.04	-0.03	-.305*	-0.02	.324**	0.13	-0.22	.356**	-0.19	-.284*	-.280*	.491**	.425**	.444**	.403**	.462**	1.00							
18	lack of IPC resources	0.06	-0.07	.324**	0.00	.335**	-0.01	-.301*	-0.03	-0.09	-0.15	-0.14	-.246*	.369**	.368**	-0.13	.354**	.530**	1.00						
19	shortage of nurses	-0.03	-0.20	0.22	-0.15	-.297*	-.281*	0.11	0.19	0.08	.294*	0.20	.508**	.286*	.364**	.257*	.285*	-0.15	-0.01	1.00					
20	high patient load	-0.18	-0.09	.414**	-0.12	.441**	-0.20	.304*	0.22	0.14	.269*	0.17	.490**	.446**	.499**	.284*	.442**	-0.19	-0.09	.701**	1.00				
21	poor support from management	0.23	-0.15	-0.22	-0.22	.247*	0.12	-0.16	-0.12	-0.12	-0.22	.358**	-.262*	.363**	.362**	-0.11	.356**	.378**	.267*	-0.15	.354**	1.00			
22	poor hospital infrastructre	0.09	-0.23	-0.11	-0.23	0.03	-0.03	-0.10	.276*	0.06	-0.02	0.02	0.09	0.07	0.07	-0.07	-0.06	0.03	0.21	.360**	.244*	0.01	1.00		
23	poor communicaton between HCW	0.20	-0.22	-0.06	-0.16	0.13	0.04	-0.09	-0.20	-.300*	.353**	-0.23	-0.16	-0.01	-0.06	-.264*	-0.08	0.15	0.10	0.17	0.17	0.07	.264*	1.00	
24	poor IPC policy implementation	0.22	0.11	0.04	0.08	0.00	0.03	0.05	-0.21	-0.17	-0.20	-.277*	-0.22	-0.10	-0.12	-0.05	-0.09	.304*	0.06	-.259*	-0.18	.254*	.305*	1.00	

*. Correlation is significant at the 0.05 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed).

Model	1			2			3		
DV: Adherence Variable	**B**	**Beta**	**Sig.**	**B**	**Beta**	**Sig.**	**B**	**Beta**	**Sig.**
(Constant)	-12.206		0.249	-5.486		0.597	3.607		0.885
Accessibility Resources	0.287	0.248	**0.019**	0.363	0.313	**0.002**	0.326	0.281	**0.006**
Individual Practice Factors	0.727	0.530	**0.000**	0.426	0.311	**0.038**	0.426	0.310	**0.044**
Availability Resources	0.384	0.050	0.660	0.024	0.003	0.977	-0.534	-0.070	0.531
IPC Practices Facility				4.871	0.769	**0.002**	5.636	0.890	**0.001**
Hand Hygiene				-0.308	-0.450	**0.027**	-0.197	-0.287	0.204
Disinfection Use				-0.050	-0.041	0.739	-0.137	-0.113	0.368
Period IPC_Training Attended							2.521	0.118	0.230
Age							1.642	0.097	0.269
Profession							-0.388	-0.044	0.885
Education							-2.658	-0.315	0.141
R	0.695			0.765			0.795		
R Square	**0.483*** **			**0.586*** **			0.632		
Adjusted R Squared	0.458			0.543			0.564		
R Square Change	0.483			0.102			0.047		
F	19.026			4.774			1.710		
Sig.	**.0001*** **			**.0005*** **			0.161		

CONCLUSIONS

- The regression model showed positive contributory effects from factors such as:
- Accessibility of IPC resources (beta = 0.31),
- Individual IPC practices (beta = 0.31) and
- Facility IPC practices (beta = 0.76).
- In contrast, hand hygiene practices (beta = -0.45) had a negative effect on the total adherence score.

- The study concluded that hand hygiene; accessibility to resources; facility IPC practices; and individual IPC practices were the main contributory factors to non-adherence with IPC at the hospital.. The study found that most of the healthcare workers in Keetmanshoop District Hospital have low adherence to IPC practices.

- It also found that the sociodemographic factors and availability of resources did not have any significant effect on the adherence to IPC practices.

- Additionally, the study employed a three-step hierarchical multiple regression model to determine the contributory factors to non-adherence with IPC at the hospital.
- Therefore, the study recommends that hospital management be advised to prioritise and build internal infection prevention and control capacity through adequate training, resources and policy implementation of the latest IPC guidelines.

MORE INFORMATION / REFERENCES

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