

Knowledge, Attitude and Practice towards Patients with HIV/AIDS among Staff Nurses in a Tertiary Care Hospital before and After Intervention, Indore (M.P)

Thakur Apurv Bhupendra¹, Ritesh Upadhyay¹, R.R. Wavare², A.R. Deshpande³,
Jaya Singh⁴

¹Pg Student, ²Professor & Dean SAMC & PG Institute, ³Professor & HOD Department of Community Medicine SAMC & PG Institute, Indore, ⁴Pg Student, Vydehi Institute of Dental Sciences and Research Centre

Abstract:

Introduction: Taking care of patients with HIV or AIDS requires special nursing knowledge and skills. There is evidence that there are still nurses who have misconceptions about HIV.

Objectives: To assess the knowledge, attitude and practices of nursing staff towards HIV/AIDS patients.

Methodology: The study was conducted from Dec 2015 to March 2016 in a tertiary health care institute in Indore (M.P.). A total of 97 nurses were included in the study. The study tool was a predesigned pretested questionnaire which consisted of 37 questions. Distinct responses were presented as proportions and analyzed by Chi-square test. P value of <0.05 was deemed statistically significant.

Result: More than 70 nurses gave correct answers to at least 4 of the questions regarding knowledge. A large portion 70 (72.17%), considered themselves at a higher risk than the general population. More than 91 (93.81%) felt that relatives should be notified of the patients' status without consent and felt the charts and beds of HIV/AIDS patients should be marked. 73 (75.26%) nurses felt that health workers with HIV/AIDS should not be working in any area of health requiring patient contact. 70 or more nurses have observed others refuse admission, refuse to treat or verbally mistreat patients with HIV/AIDS. 84 (86.60%) recapped needles. After attending the workshop the number of correct responses significantly increased to more than 90% and significant p values of <0.0001 were obtained by comparing the correct responses before and after the workshop.

Conclusion: The study shows a large number of nursing staff recapping needles and observing others mistreat or refuse admission to people, and feeling that the consent of the patient is not necessary in certain circumstances, but these can be improved by conducting workshops.

Key words: KAP, HIV / Aids, Nursing Staff

I. Introduction

In the middle of 20th century (during 1970s) the HIV infection was confined to green monkeys of Africa. How it was transmitted to human beings is not known. Then it spread to Haiti, Caribbean Islands and reached USA, from where it spread to all parts of the world like a devastating fire.¹

AIDS is a fatal illness caused by a retrovirus known as HIV (Human Immunodeficiency Virus) and it can be called as our modern Pandemic. India's epidemic can be marked by heterogeneity i.e. made up of multiple distinct epidemics sometimes within the same state. Provisional estimated for the year 2012 showed 20.89 lakh people living with HIV/AIDS with an estimated prevalence of 0.27%.²

Maintaining the desired quality of life of people with HIV/AIDS is possible mainly through extensive, competent and compassionate nursing care. Yet, the provision of this care raises health and occupational concerns for all levels of health care providers.³ Taking care of patients with HIV or AIDS requires special nursing knowledge and skills.⁴

HIV/AIDS stigma exists around the world in a lot of different ways, including ostracism, rejection, discrimination and avoidance. HIV testing without permission or security may be considered as wrongdoings towards those with HIV; compulsory HIV testing without prior consent or protection of confidentiality; violence against HIV infected individuals or people who are perceived to be infected with HIV; the quarantine of HIV infected individuals are some other examples of such wrongdoings.⁵ Patient rights as per the World Health Organization is defined as those rights owed to the patient as a human being, by physicians and by the state.⁶ In fact Consumer Guidance Society of India and the Code of Medical Ethics Regulation clearly states that the patient has the right to health care, confidentiality at all times (even from relatives), and right to expect humane behavior from health personnel.^{7, 8, 9}

Aims/ Objectives:

1. Asses the knowledge among nurses regarding HIV/ AIDS.
2. Determine the attitude of nurses towards patients who are suffering from HIV/ AIDS.
3. To find out the practices of nurses regarding HIV as a disease and towards HIV patients.
4. To provide comprehensive knowledge and basic skill to nurses and then reassess their acquired knowledge and skills while dealing with patients who have contracted HIV/ AIDS

Methodology:

• **Study population:**

The study was conducted from December 2015 to March 2016 at a Tertiary care Hospital in Indore City. All nursing staff were considered for the study except those recently joined nurses(experience of less than one month) and the head nurses who were mostly into administrative work and no longer dealing with patients. A total of 120 nursing staff, from 8 Departments (Critical Care Unit, Intensive Cardiac Care Unit, Intensive Care Unit, Cardio Vascular Thoracic Surgery, Pathology, Operation Theatre, High Dependency Unit), initially agreed to participate in the study out of which 97 actually completed the questionnaire with relevant answers.

• **Study Tool**

The questionnaire was predesigned, pretested and semi-structured. It consisted of a total 37 questions divided into four sections, of which some were based on the questionnaires used in the similar studies done in India, Italy, Nigeria, Benin and Uganda ^{3, 4, 10, 11, 12, 13}. The first section dealt with the demographic characters of the participants, the second considered the knowledge of the nurses regarding various etio-pathological aspects of HIV/ AIDS, the third was toward the attitude of nurses regarding HIV, Patients and ethical issues, and the final section tested the staff on their everyday practices.

• **Method:**

The study was carried out in three steps:

1. A pilot study was performed on 20 nurses, who were then not included in the original study, to assess the feasibility of the questions and the time taken for filling of the questionnaire. Average time for filling of the proforma was assessed, which was approximately 17 minutes. Feedback was taken from the individuals to assess the appropriateness of the questions.
2. In the second step the 97 willing participants were asked to fill out the questionnaires in the stipulated time given to them.No personal information regarding name, address, or any other identification was asked so as to maintain the confidentiality of the individuals. The participants were reassured of the maintenance of confidentiality, also as per the agreement with the authorities of the institution the name of the tertiary care hospital was also not displayed anywhere in this study. The responses were recorded and filed for further evaluation.
3. After consultation with the appropriate authorities a date was decide on which a workshop on HIV was conducted for the participants, where lectures on HIV/AIDS regarding precautions and ethical considerations were delivered. The proforma was once again distributed amongst the participants and the new responses were recorded on the same day.

II. Statistical Analysis

Distinct response rates to questions were presented as proportions and the responses were analyzed by chi square testso as to determine the change in the responses, after the intervention. P-value of <0.05 was deemed statistically significant. A total of 75% correct answers were considered as a good level of knowledge.

Table 1

Nurses' Years Of Experience in Various Areas				
MEDICAL WORK AREA	<1 year	1-5 years	>5 years	Total
CCU	5	6	4	15
ICCU	4	5	3	12
ICU	5	0	4	9
CVTS	1	8	7	16
Pathology	3	1	1	5
Dialysis Unit	5	0	2	7
OT	2	10	7	19
HDU	8	3	2	13
TOTAL	33	33	31	97

Table 2

Nurses' Knowledge about Various Etio-Pathological Aspects About AIDS/ HIV					
	Pre Workshop		Post Work Shop		P value (chi Square test)
	Correct Response	Incorrect Response	Correct Response	Incorrect Response	
Meaning of acronym AIDS/ HIV?	81	16	96	1	<0.0001
Incubation Period of HIV?	64	33	87	10	
Time taken for a person to develop full blown AIDS?	54	43	83	14	
Is there a cure for AIDS?	94	3	97	0	
Meaning of being seropositive?	30	67	91	6	
Meaning of window period?	34	63	89	8	
Modes of HIV Transmission?	71	26	97	0	
How to diagnose HIV Infection?	80	17	93	4	
How to destroy HIV outside the body?	40	57	88	9	

Table 3

Nurses 'ATTITUDE towards Patients with HIV/ AIDS					
	Pre Workshop		Post Work Shop		P value (chi Square test)
	Correct Response	Incorrect Response	Correct Response	Incorrect Response	
Do you think yourself to be at risk of contracting AIDS at your workplace?	97	0	97	0	<0.0001
Do you think to be more at risk than the general population?	70	27	93	4	
Should staff and health personnel be told when a patient has AIDS/HIV?	93	4	96	1	
Are there any circumstances when it is appropriate to test a patient for HIV/AIDS without the patient's/ attendors' knowledge/ permission?	38	59	89	8	
Should all health care workers be subjected to mandatory HIV/ AIDS testing?	49	48	88	9	
Should relatives/ sexual partners of patients with HIV/ AIDS be notified of the patient's status without their consent?	6	91	96	1	
The charts/beds of patients with HIV/AIDS should be marked so clinic/hospital workers know the patient's status?	7	90	95	2	
A health professional with HIV/AIDS should be allowed to work in any area of health care that requires patient contact?	73	24	91	6	
Do many of those with HIV/AIDS behave immorally and deserve to have the disease?	67	30	95	2	

Table 4

Nurses' Practice towards Patients with HIV/ AIDS					
Questions asked	YES		NO		
	Pre Workshop	Post Workshop	Pre Workshop	Post Workshop	
Will you refuse to care for a patient with HIV/AIDS?	10	6	87	91	
Will you refuse a patient with HIV/AIDS admission to a hospital?	5	1	92	96	
Have observed others refusing to care for a patient with HIV/AIDS?	71	71	26	26	
Have observed others refuse a patient with HIV/AIDS admission to a hospital?	85	85	12	12	
Will you verbally mistreated a patient with HIV/AIDS?	2	1	95	96	
Have observed others verbally mistreat a patient with HIV/ AIDS?	70	70	27	27	
Have observed others give confidential information to a family member?	60	60	37	37	
Will give confidential information to a non-family member?	5	2	92	95	
Have observed others give confidential information to a non-family member?	80	80	17	17	
Will you always use gloves, masks routinely when handling biological specimens or for patient care?	57	93	40	4	<0.0001 (chi square)
Will you recap the needles after use?	84	1	13	96	<0.0001 (chi square)

III. Result

Most of the participants were females hence gender was not considered as a significant variable. A majority of nursing staff were Hindus (55), Christians (30), others (12). Table 1 shows distribution of nurses in 8 departments over 3 phases of work experience. Experience was divided into 3 groups, <1 year, 1-5 years, >5 Years. The number of people in the three groups of experience years was almost identical.

As far as knowledge was concerned only 62.77% correct answers were obtained, and an even more worrying statistic was that more than half had no idea of the terms seropositive, window period, and how exactly to destroy the HIV infection outside the body. The number of correct responses was significantly increased after the workshop with 94.04% correct answers being obtained and almost all of the nurses understanding the terms seropositivity, window period, and how to destroy the HIV infection outside the body. The comparison of correct answers of the pre and post workshop responses showed a highly significant p value of <0.0001 (Table 2).

Table 3 dealt with the attitude of the staff showed that all the nursing staff considered themselves to be at risk of contracting HIV/AIDS at their work place, and a large portion, 70(72.16%), considered themselves to be at a higher risk than the general population. 91(92.78%) nurses felt that relatives should be notified of the patients' status without consent and a similar number felt that the charts and bed of HIV/ AIDS patients should be marked. A total 73(75.26%) nurses felt that health care workers with HIV/ AIDS should not be working in any area of health care that requires patient contact. A total of 48 (49.48%) felt that all health workers should be subjected to mandatory HIV/ AIDS testing. The percentage of correct responses was 57.27%. After the workshop the percentage of correct responses increased to 96.23%. The comparison of correct answers of the pre and post workshop responses showed a highly significant p value of <0.0001

Table 4 shows the general practices followed by the nursing staff, where 70-80(72.16% - 82.47%) nurses have observed others refuse admission, refuse to treat or verbally mistreat patients with HIV/ AIDS. Only 57 (58.76%) nurses regularly used gloves and masks routinely for all patients regardless of them having been tested for HIV/ AIDS. A large number 84(86.60%) admitted to recapping of needles after use. However after attending the workshop most of the nurses agreed that it was necessary to use gloves and masks routinely and that recapping of needles was not to be done, a highly significant p value of <0.0001 was obtained after applying chi squared test to these two variables.

There was no consistent pattern of differences in knowledge, attitude and practice across the different departments surveyed. No other significant relations were found with comparison of other variables.

IV. Discussion

Similar studies have been carried out in various developing countries^{3, 10, 11, 12}, but very few such studies were found in developed countries⁴, and there is a wide range of results which have been obtained. Our study shows that a vast majority of the nursing staff do not know the exact meanings of sero-positivity, window period or how to destroy the HIV organism outside the body, which does not correspond to the results obtained in similar studies conducted in Sicily, Kolkata and Maharashtra^{4, 10, 11} where a larger number of participants had knowledge about the above definitions. However certain misconceptions regarding transmission have been found in studies conducted in Nigeria and Benin-Nigeria.^{11, 12} Intervention shows that the knowledge seems to increase after explaining certain terms to the healthcare workers.

In our study we have found that almost all the nurses felt that patients' attenders should be informed of the HIV/ AIDS status of the patient and the beds should be marked with charts, whereas in the study conducted in Nigeria¹¹ this percentage was lower, but after explaining the rights of patients as well as the rights of healthcare workers the attitude of the healthcare workers seems to change for the better.

There is a small number of nurses refusing admission to or mistreated patients or divulged confidential information in our study, similar to the study conducted in Sicily⁴, however our study shows that a vast majority who have observed others mistreat or refuse admission to patients.

Our study also shows that almost all the nurses feel that the charts and beds of the patients should be marked and this number is significantly lower than the one found in Benin-Nigeria¹²

The number of people who recap needles and do not use gloves or masks is alarmingly high in our study, this number is relatively lower in the studies conducted in Sicily, Maharashtra and Nigeria.^{3, 4, 11} However the fact that the majority of participants agreed to use gloves and not recap needles after the workshop is a highly positive step towards the betterment of healthcare and safety of both patients as well a health care workers.

Limitations

This study is limited to one tertiary care center and it cannot be generalized to the entire population.

V. Conclusion

The study does show some worrying statistics such as the large number of nursing staff who recapped the needles and observed others mistreat or refuse admission to people, as well as feeling that the consent of the patient is not necessary in certain circumstances. But the positive aspect is that after conducting a workshop these statistics can be significantly improved

VI. Recommendations

1. Similar such studies should be conducted in other institutions so as to get a better projection of the result for the general population.
2. Nursing staff should be encouraged to attend workshops on AIDS/ HIV as our study shows a marked improvement in the knowledge attitude and practices of the nurses after the workshop.
3. These workshops should also focus on the ethical aspects to make sure that the healthcare providers are aware of both the rights of the patient as well as the rights of the healthcare providers.
4. Hospitals should actively participate in arrangement of such workshops.

Conflict of Interest: None

References

- [1]. Suryakantha AH. Community medicine with recent advances. Third ed. India: Jaypee Brothers Medical Publishers; 2014. ISBN: 9789350906446.
- [2]. Park, K. Park's Textbook of Preventive And Social Medicine. (23 ed.). Jabalpur: BanarsidasBhanot; 2015.
- [3]. Chendake, M.B. and Mohite, V.R. (2013) 'Assess The Knowledge And Attitude Of Nursing Students Towards Hiv/Aids', Indian J. Sel. Res, 4(1), Pp. 69-74.
- [4]. Marranzano, M., Ragusa, R., Platania, M., Faro, G. and Coniglio, M.A. (2013) 'Knowledge, attitudes and practices towards patients with HIV/AIDS in staff nurses in one university hospital in Sicily', Epidemiology Biostatistics and Public Health, 10(1), pp. e8731-1 to e8731-6.
- [5]. "The impact of AIDS on people and societies". 2006 Report on the global AIDS epidemic. UNAIDS. 2006.
- [6]. Patients' Rights [Internet], Genomic Resource Center: World Health Organization. Available from: <http://www.who.int/genomics/public/patientrights/en/>
- [7]. Consumer Guidance Society of India[Internet]. Know your rights. Mumbai: CGSI Available from: <http://www.cgsiindia.org/knowyourrights.html>
- [8]. Medical Council of India New Delhi: MCI; c2010. Code of Ethics Regulations, 2002. 2002 Mar 11 Available from: <http://www.mciindia.org/RulesandRegulations/CodeofMedicalEthicsRegulations2002.aspx>
- [9]. Ghool RB, Deshpande SR. Patients' rights in India: an ethical perspective. Indian Journal of Medical Ethics. 2012 Dec;IX(4):277-81.
- [10]. Deb S, Mukherjee A, Acharya S. Attitude of Nursing Students of Kolkata Towards Caring For HIV/AIDS Patients. Indian Journal of Community Medicine. 2004 Jul;29(3):111-3.
- [11]. Reis, C., Heisler, M., Amowitz, L.L., Moreland, R.S., Mafeni, J.O., Anyamele, C. and Iacopino, V. (2005) 'Discriminatory attitudes and practices by health workers toward patients with HIV/AIDS in Nigeria', PLoS Medicine, 2(8), p. e246.
- [12]. Aisien AO, Shobowale Mo. Health Care Workers' Knowledge OnHiv And Aids: Universal Precautions And Attitude Towards Plwha In Benin-City, Nigeria. Nigerian Journal Of Clinical Practice. 2005 Dec;8(2):74-82.
- [13]. Walusimbi M, Okonsky Jg. Knowledge And Attitude Of Nurses Caring For Patients With Hiv/Aids In Uganda. Applied Nursing Research. 2004 May;17(2):92-9.