



Original Research Article

“Knowledge, Beliefs and Attitudes about HIV/AIDS among Health Care Providers of Govt. Medical College and Hospital, Miraj, Maharashtra.”

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ABSTRACT

BACKGROUND: National AIDS Control Programme (NACP) has given priority to awareness and has targeted health personnel for training. It is important for health care personnel to understand the limits of the risk to themselves when they treat an infected patient. Proper knowledge regarding HIV/AIDS will prevent further transmission of HIV/AIDS.

OBJECTIVE: To assess Knowledge, Beliefs and Attitudes of health care providers (HCP) regarding HIV and AIDS.

METHODOLOGY: Study design: Cross- sectional. Study setting: Govt. Medical College and Hospital, Miraj. Participants: All hospital personnel (Medical personnel, Paramedical staff, Laboratory Personnel & Hospital support staff) working in the clinical departments and laboratories. N=395 Data was collected using predesigned, pretested proforma.

RESULTS: Overall correct knowledge about causative agent was observed among 90.13% HCP. Knowledge regarding HIV/AIDS transmission was found to be significantly higher among medical personnel. Overall 74.94% HCP had correct knowledge about the symptoms of the disease. 87.34% of care providers had correct knowledge about post-exposure prophylaxis (PEP) while 66.67 % of them could able to tell correct drugs used in PEP, while 90.89% stated correctly about universal safety precautions. Correct knowledge about diagnosis of HIV/AIDS was known to 96.96% of HCP. 89.11% HCP stated correctly that disease is not curable. 96.20% study subjects had correct knowledge about prevention of HIV/AIDS. Awareness about NACP was present in 93.67% of care providers. Fear of contagion was reported by 39.24% HCP. ‘AIDS patient should be kept in isolation’ was the opinion of 25.57% of HCP.

CONCLUSION: Seminars, workshops should be organized on a continuous basis for health care workers on universal precautions, stigma and discrimination reduction.

Key Words: Knowledge, Attitudes, HIV/AIDS.

INTRODUCTION

Acquired Immuno-deficiency Syndrome (AIDS) has emerged as one of the most important public health issues of the late twentieth and early twenty-first centuries and is now one of the leading causes of global morbidity and mortality. The AIDS epidemic has prompted wide-reaching changes in public health, clinical practice, and scientific research, and has a great impact upon societies throughout the world. [1] The Knowledge Attitude Practice (KAP) study asserts that, the mere provision of knowledge is insufficient to persuade individuals to adopt sound health practices. An intermediate stage must be supplied, which involves the development of attitudes favorable to the adoption of the approved and acceptable healthy practices offered by the health care providers. National AIDS Control Programme has given priority to awareness and has targeted health personnel for training. It is important for health care personnel to understand the limits of the risk to themselves when they treat an infected patient.

Objective:

To assess Knowledge, Beliefs and Attitudes of health care providers (HCP) regarding HIV and AIDS.

MATERIALS AND METHODS

Study area: Present study was carried out in two hospitals officially affiliated to Government Medical College.

Study Design: Cross sectional

Inclusion Criteria: All hospital personnel working in the clinical departments and laboratories of Government Medical College and Hospital during the study period.

Exclusion Criteria:

- All clerical and administrative staff who has not any patient contact.
- Persons retired before inception of study.
- Person who had left job before the starting of study.

Study Subjects: Health care personnel (who are involved in diagnosis, management, counseling etc. of HIV/AIDS affected)

Number of study subjects covered: 395

Distribution of study subjects:

Medical Personnel: Residents Doctors, Medical teachers & Medical officers working in the clinical departments (n=106)

Paramedical staff: Nursing staff (n=134)

Laboratory Personnel: Technicians, Counselors (n=75)

Hospital Support Staff: Class IV employees (n=80)

RESULTS AND DISCUSSION

The distribution according to the trade was 26.84% in Medical Personnel category, 33.92% in Paramedical staff category, 18.99% in Laboratory Personnel category and 20.25% were hospital support staff.

A. Knowledge about the causative agent of HIV/AIDS

Overall correct knowledge about causative agent was observed among 90.13% HCP. 100% of the medical personnel had correct knowledge about causative agent, but only 53.75% hospital support staff had correct knowledge about causative agent. These findings were similar to studies conducted by Gellert et al (96.4%), [2] Rasanika SK et al (96.27%) [3] and Tibdewel SS et al (2007) 57.3% (class IV). [4] Management of a disease and limiting the spread requires proper knowledge of disease etiology; and the understanding of disease etiology is a vital component in disease epidemiology.

B. Knowledge about modes of transmission of HIV/AIDS

Table No. 1. Knowledge about modes of transmission of HIV/AIDS

Sr. No	Modes of transmission	Medical Personnel	Paramedical Personnel	Laboratory Personnel	Hospital Support Staff	Total
1	Sexual	106 (100)	134 (100)	75 (100)	75 (93.75)	390 (98.73)
2	Perinatal	106 (100)	134 (100)	75 (100)	68 (85)	383 (96.96)
3	Blood & blood product	105 (99.06)	127 (94.78)	68 (90.67)	62 (91.64)	362 (91.64)
4	Sharing infected needle	104 (98.11)	129 (96.37)	71 (94.67)	62 (77.50)	366 (92.66)

1. $\chi^2= 40.39$ df=3 p<0.001 HS (highly significant)
2. $\chi^2= 48.73$ df=3 p<0.001 HS
3. $\chi^2= 30.32$ df=3 p<0.001 HS
4. $\chi^2= 34.67$ df=3 p<0.001 HS

χ^2 test is applied on the basis correct and incorrect knowledge from Sr. No.1 to 4.

The knowledge regarding HIV/AIDS transmission was found to be significantly higher among medical personnel (p< 0.001). Even though many people were aware of the link between blood and HIV, and between high-risk behavior and HIV, approximately 24.56% of hospital support staff was unsure

of the transmission through mosquito bite. These observations of the present study were comparable with the studies conducted by Gachigo JN et al., [5] Michelle Kermode (2005). [6] The present study revealed higher knowledge; this could be because of the fact that there has been increase in the level of awareness because of trainings and mass media campaigns.

C. Knowledge about difference between HIV and AIDS

Table No. 2 Knowledge about difference between HIV and AIDS

Sr. No	Category	Correct	Partially correct	Incorrect	No response	Total
1	Medical Personnel	102 (96.23)	2 (1.89)	2 (1.89)	0 (0.00)	106 (26.84)
2	Paramedical Personnel	111 (82.84)	12 (8.96)	11 (8.21)	0 (0.00)	134 (33.92)
3	Laboratory Personnel	43 (57.33)	16 (21.33)	11 (14.67)	5 (6.67)	75 (18.99)
4	Hospital Support Staff	0 (0.00)	0 (0.00)	0 (0.00)	80 (100)	80 (20.25)
Total		256 (64.81)	30 (7.59)	24 (6.08)	85 (21.52)	395 (100)

HIV is the virus that causes the disease AIDS. Although HIV causes AIDS, a person can be infected with HIV for many years

before AIDS develops. Responses were labeled as correct, partially correct, incorrect and no response. Highest knowledge was

noted among medical personnel (96.23%), while not a single hospital support staff knew the difference. Overall 64.81% health care providers had correct knowledge. Results of the present study were better as compared to study carried out by M. Dobe (1995) [7] (96.23% versus 87% in medical personnel) and Rasania SK (2003) [3] (64.81% versus 55.10% in all categories). In

the present study there was gross difference in the knowledge about difference between HIV and AIDS among all the four categories. This may be accounted for in general; the educational curriculum of doctors is more rigorous and longer in duration than that for nurses and laboratory workers.

D. Knowledge about symptoms of AIDS

Table No.3 Knowledge about symptoms of AIDS

Sr. No.	Knowledge	Medical Personnel	Para medical staff	Laboratory Personnel	Hospital Support Staff	Total
1	Correct	103 (97.17)	112 (83.58)	55 (73.33)	26 (32.50)	296 (74.94)
2	Partially correct	3 (2.83)	22 (16.42)	3 (4.00)	13 (16.25)	41 (10.38)
3	Incorrect	0 (0.00)	0 (0.00)	12 (16.00)	8 (10.00)	20 (5.06)
4	Don't know	0 (0.00)	0 (0.00)	5 (6.67)	33 (41.25)	38 (9.62)
Total		106 (26.84)	134 (33.92)	75 (18.99)	80 (20.25)	395 (100)

Overall 74.94% health care providers had correct knowledge about the symptoms of the disease. The present study findings indicate that the majority of the Medical Personnel, Paramedical staff were familiar with the symptoms of the disease, with the highest knowledge among the doctors and the lowest among hospital support staff. For health professionals it is very essential to be familiar with the symptoms of any disease so that they can diagnose it properly. Knowledge among hospital support staff may be insufficient due to several factors, including lack of accessibility to information and lack of training.

E. Correct knowledge about diagnosis and cure of HIV/ AIDS

Table No.4 Correct knowledge about diagnosis and cure of HIV/ AIDS

Sr. No.	Correct Knowledge	Medical Personnel	Para medical staff	Laboratory Personnel	Hospital Support Staff	Total
1	Diagnosis	106 (100.00)	134 (100.00)	75 (100.00)	68 (85.00)	383 (96.96)
2	Cure	103 (97.17)	127 (94.78)	69 (92.00)	53 (66.25)	352 (89.11)

1. $\chi^2 = 48.73$ df=3 p<0.001 HS

2. $\chi^2 = 55.27$ df=3 p<0.001 HS

When asked about the names of tests, majority 300 (75.95%) told ELISA followed by p24 assay 174 (44.05%). Polymerase chain reaction was mentioned by 97 (24.56%) and western blot by 63 (15.95%) participants. When asked about whether the disease is curable, 97.17% medical personnel stated correctly that disease is not curable. While only 66.25% hospital support staff knew that there is no cure for HIV/AIDS. The difference in the knowledge about diagnosis and cure among different categories of health care providers was found statistically significant. Those who responded that disease is curable the reason for that was availability of antiretroviral drugs. But majority among them didn't give any explanation. The reasons for non cure were immune system involvement (23.29%), no virucidal drug (15.44%) & mutagenic virus (14.43%).

These observations of the present study were comparable with the studies conducted by Adelekan ML et al (1995) [8] who observed that 98% nurses, 85% physicians, 87% other staff were aware that there is no known cure for AIDS (p <0.01) and Mohammad et al (2002) [9] who reported that 93.6% health workers, 96.9% nurses

Health care providers are required to provide specific information to HIV/ AIDS patients and to customize it for a wide range of client needs. In these contexts, health care

and 100% of doctors had correct knowledge on detection of HIV infection.

Knowledge about diagnosis and cure is must among health care providers to provide better care for patients. All the health care providers at some time or the other are called upon to counsel the patient in some form or another. At such time, they can correctly guide a patient only if they have the correct perception about the diagnosis and cure of the disease.

F. Knowledge about non-availability of vaccine and prevention of HIV/AIDS

93.67% health care provider had correct knowledge about non-availability of vaccine. 96.20% study subjects had correct knowledge about prevention of HIV/AIDS. On the preventive aspects, proper use of condoms (92.40%), avoiding sharing needles (72.91%) and screening blood for transfusion (89.90%) were known to limit the spread of AIDS. Knowledge regarding prevention of perinatal transmission by medicines was present among 75% health care providers. These observations of the present study were comparable with the studies conducted by Dinesh Paul et al (2001). [10]

providers should become more comfortable discussing HIV/ AIDS issues with their patients and have higher levels of knowledge about prevention of HIV/AIDS.

Apart from this, they should have knowledge about prevention to reduce occupational transmission of HIV/AIDS. In present study majority stated that health

education, universal safety precautions, PPTCT and safe blood transfusion can prevent transmission of HIV/AIDS.

G. Correct knowledge about PEP and USP

Table No.5 Correct knowledge about PEP and USP

Sr. No.	Correct Knowledge	Medical Personnel	Para medical staff	Laboratory Personnel	Hospital Support Staff	Total
1	PEP	106 (100.0)	132 (98.51)	68 (90.67)	39 (48.75)	345 (87.34)
2	USP	106 (100.0)	128 (95.52)	70 (93.33)	55 (68.75)	359 (90.89)

1. $\chi^2=138.99$ df=3 p<0.001 HS

2. $\chi^2=61.97$ df=3 p<0.001 HS

87.34% of care providers had correct knowledge about post-exposure prophylaxis. When asked about medications used in PEP, 66.67 % of them could able to tell correct drugs used in PEP, while 90.89% stated correctly about universal safety precautions.

AAJ Hesse et al (2006) [11] reported that 92% doctors claimed knowledge about universal precautions, while Clement A et al (2002) [12] observed that 42.2% respondents had an idea of universal precautions. Chan R et al (1996) [13] found that only 24.3% could list all the anti-HIV medications used. In a study carried out by Duff et al (1999) [14] 7.6% knew about PEP. The reasons for better 'knowledge-base' in our study population of doctors might include better sensitization, availability of institutional guidelines, rising incidence of HIV, prior experience of self/ peers as well as past training on the subject of PEP. Availability of institutional guidelines and wide publicity of PEP available in the institution premises is a must for reducing the time interval between the occupational exposure and the first dose of ART drugs taken.

H. Awareness about NACP

93.67% of care providers were aware of national AIDS control programme and

94.95% were aware about government provisions like free antiretroviral therapy to the patients. Being health care provider they should be aware about components of NACP as well as other provisions of government so that they can refer the patients for further care as well as support.

I. Attitude towards patient care: Fear of contagion

39.24% health care providers were afraid of getting infection during the course of their work. The difference of perception among these four categories was found to be very highly significant. In a study conducted by Gordin FM et al (1987), [15] fear of contagion was noted by 25% of employees, while in a study by Chen Reis et al (2005), [16] it was noted in 81% of the respondents.

In present study, it is envisaged that fear of contagion was high among laboratory personnel, possibly because of the fact that of their routine work i.e. contact with blood or infective body fluids of suspected HIV patient. The fact that there is no cure and no vaccine against AIDS has caused great apprehension and fear amongst the hospital employees. Confidence can be created amongst them by taking adequate measures to prevent and control infection.

J. Attitude towards PLHA(People living with HIV/AIDS)

Table No. 6 Attitude towards PLWHA

S. No.	Statement	Category	Yes	No
1	Do you treat PLWHA differently?	Medical Personnel	28 (26.42)	78 (73.58)
		Paramedical staff	27 (20.15)	107 (79.85)
		Laboratory Personnel	21 (28.00)	54 (72.00)
		Hospital Support Staff	25 (31.25)	55 (68.75)
		Total	101 (25.57)	294 (74.43)
2	Should an AIDS patient be kept in isolation ward?	Medical Personnel	11 (10.38)	95 (89.62)
		Paramedical staff	16 (11.94)	118 (88.06)
		Laboratory Personnel	17 (22.67)	58 (77.33)
		Hospital Support Staff	37 (46.25)	43 (53.75)
		Total	101 (25.57)	294 (74.43)
3	Should a person with AIDS marry or have children	Medical Personnel	91 (85.85)	15 (14.15)
		Paramedical staff	108 (80.60)	26 (19.40)
		Laboratory Personnel	59 (78.67)	16 (21.33)
		Hospital Support Staff	55 (68.75)	25 (31.25)
		Total	313 (79.24)	82 (20.76)
4	Should a person with AIDS allow to work in the same place as you work?	Medical Personnel	101 (95.28)	5 (4.72)
		Paramedical staff	125 (93.28)	9 (6.72)
		Laboratory Personnel	71 (94.67)	4 (5.33)
		Hospital Support Staff	65 (81.25)	15 (18.75)
		Total	362 (91.65)	33 (8.35)
5	Should health care worker be allowed to refuse to care for PLWHA?	Medical Personnel	9 (8.49)	97 (91.51)
		Paramedical staff	16 (11.94)	118 (88.06)
		Laboratory Personnel	9 (12.00)	66 (88.00)
		Hospital Support Staff	16 (20.00)	64 (80.00)
		Total	50 (12.66)	345 (87.34)

1. $\chi^2=3.69$ df=3 p>0.05 NS (Non-significant) 2. $\chi^2=45.44$ df=3 p<0.001 HS
 3. $\chi^2=8.33$ df=3 p<0.05 S (significant) 4. $\chi^2=14.48$ df=3 p<0.05 S

25.57 % of health care providers stated that AIDS patient should be kept in isolation ward. Medical and paramedical staff had more positive attitude as compared to other staff.

The findings of the present study were comparable with following studies.

Danchaivijitr S et al (1995) [17] and Mungherera M et al (1997) [18] found that health practitioners had positive attitudes with PLWHA. Hentgen V et al (2002) [19] in their study noted that 21% of the health workers had an opinion that AIDS patients should be isolated. Michelle Kermode (2005) [20] found that 15.2 % thought that HCWs should be allowed to refuse to care for people with HIV/AIDS.

Many of the respondents in this study have a negative attitude towards PLWHA. This aversion may be related to the perception of risk of infection, the non-availability of equipment to comply with universal precautions, inadequate training, the high seroprevalence of HIV, and low level of awareness. The stigma of caring for patients with HIV/AIDS poses a significant barrier to their treatment. HIV/AIDS related stigma leads to a vicious circle with isolation of and discrimination toward people with HIV/AIDS. The attitude of HCW to patients with HIV can change with interventions that increase their skills and confidence in dealing with HIV positive patients.

CONCLUSION

Seminars, workshops should be organized on a continuous basis for health care workers on universal precautions, stigma and discrimination reduction. Those trained should train others on the job. When proper information will be imparted to them in systematic manner and it will be enforced from time to time (knowledge) then and then only we can hope to achieve development of proper attitudes. The institution should also

make available materials needed to protect workers against the risk of acquiring pathogenic infection in the course of providing health services to their patients.

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