

Surgical Trainees and HIV/AIDS; Perception and Associated Fear

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ABSTRACT

Objective: To access the level of awareness regarding HIV/AIDS among surgical trainees of Pakistan and the fear associated of getting transmitted while working in a healthcare setup.

Materials and Methods: A cross sectional study was conducted at 10 hospitals in Sindh. The study was conducted on surgical trainees in those hospitals and a self-administered questionnaire was administered during the period of Jan-August 2015. Chi Square test was applied and P-values were commuted to find the significance. The data was analyzed by SPSS 17. **Results:** The questionnaire was administered to 400 surgical trainees of whom 310 opted to participate. The level of awareness regarding HIV was significantly high in both male and female surgical trainees, however in comparison females had a greater level of awareness about the treatment (30%), modes of

transmission (100%), and knowledge regarding dealing with needle prick injuries (96%) as compared to male trainees. However lack of knowledge about the HAART therapy was seen among both male (26%) and female surgical residents (30%). Moreover majority of both male (58%) and females (87%) surgical trainees had the point of view that government is not taking affective steps to counter the fight against HIV/AIDS. **Conclusion:** In spite of significant general knowledge about HIV and its prevention yet lack of knowledge was seen about HIV treatment i.e. HAART therapy in surgical trainees of Pakistan. Furthermore the Pakistani government needs to take proper initiatives to increase the awareness and to counter the fight against this fatal disease. **Key words:** Fear, Healthcare, HIV, protease inhibitors

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INTRODUCTION

The HIV was first discovered in the United States in 1981. This viral infection mostly transmits through the sexual contact, needle stick prick, parental route and exposure to the body fluid of affected individual.^{1,2} HIV/AIDS has turned into a worldwide issue and presents serious civil health problems in growing nations.³ In 2008, it was estimated that approximately 33 million humans

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are alive with HIV internationally.^{4,5} According to UNAIDS data sheet, in Pakistan since 1993 every year, prevalence of HIV has kept on raising from 1,200 in 1993 to 94,000 in 2014.⁶ What is even more remarkable is that since 2011-2014, the prevalence of individuals living with HIV has hiked from 11% in the duration of 2011-12 then 14% in 2012-13 and lastly to 16% in 2013-14.⁶ This has attended to an intense concern in the surgical community in terms of a impact on the practice of surgery and sanctuary of practitioners.¹ As measured 600000 to 800000 needle stick and other skin injuries are addressed yearly health care worker.⁷ The surgeons are at big risk among health care worker and reason determined was stress or being over strained followed by careless

mindset. More than 50% of the injuries occurred while injecting or drawing blood samples.⁸ It has been evaluated that at least 1 in 1500 surgeons is possible to be affected by HIV in the next few decades.¹

In 1996, decade after the detection of HIV, the thought of dealing with HIV infection with hugely active antiretroviral treatment (HAART) was discovered.⁵ Antiretroviral therapies such as nucleoside analogues and protease inhibitors decrease the viral load in the host serum and build up the counts of host CD4 cells. The infected person is not cured but their immunity is at least partly rebuilt.⁹

Despite the accessibility of efficient treatment, and despite many public education campaigns, HIV infection is still generally diagnosed too late, occasionally with fatal consequences. Persons at elevated danger for HIV infection should, therefore, be consistently offered HIV testing. Knowing about HIV-associated cases can benefit physicians diagnose HIV early and initiate HAART in timely fashion.⁵

A need was thus felt to conduct a study regarding HIV awareness, knowledge and perception among a specific group of healthcare workers, the surgical trainees.

OBJECTIVE OF THE STUDY:

The aim of this study is to investigate the training needs of surgical postgraduate trainees regarding HIV/AIDS

The objective of this study was to assess the awareness about HIV/AIDS, in surgical trainees in Pakistan

MATERIALS & METHODS

Study setting and sample selection:

This cross sectional study was conducted at ten conveniently selected hospital in Sindh from January 2015 to August 2015. A sample of 400 post graduates was approached to answer the questionnaire, however 310 consented to participate. The sample from these hospitals was taken randomly without any gender or age restrictions. As post graduate trainees were well capable to communicate in English, this substituted the need to translate the questionnaire

and manageable to get the verbal and written consents.

Inclusion criteria for the participants were to be post graduate trainees in Surgery, both male and female without any age or grade restrictions.

Data collection:

The data was collected, through self-administered questionnaires. Very few studies have been conducted in Pakistan regarding practices and knowledge of HIV/AIDS; hence Questionnaires was self-administered according to the social dynamics of the sample population. Written consent was taken from all the participants and briefed regarding the voluntarily participation in the study and that they can withdraw from the study at any time before the end of the study. They were also briefed regarding the confidentiality of their identity, which was maintained.

Statistical Software “Statistical Package for Social Sciences” (SPSS Version-17) was used for data entry and statistical analysis.

RESULTS

In total 310 trainees participated in the research (68% male, 32% females). Participants were found to have high knowledge regarding the mode of transmission of HIV with 100% females while 94% males knew all the modes. 76% of the females, while 68% of the males were well aware of the strategies if they were prick with a needle (Table 1).

While expressing their concerns regarding governments policies regarding the issue, 42% of the males while only 13% of the female post graduate trainees were satisfied with the steps taken by the government (Table 1).

Contrasting fear levels were found in Junior and senior residents in some aspects, as the 28% of the junior residents were feared to be infected with HIV during major surgical procedure and 18% of the senior residents. Likewise for minor surgical procedures fear was found in 16% and 11% of the junior and senior residents respectively 1.45 (95% C.I: 1.1-2.6).

Table 1: The distribution of Knowledge among trainees (N=310) according to different sociodemographic characteristics

Demographics		Number of respondents (%)	All modes of transmission (%)	Haart treatment knowledge (%)	Knowledge regarding dealing with needle prick	Knowledge regarding treatment to prevent mother to child transmission (%)	Government is taking affective steps to counter the emerging problem (%)
Sex	Male	68%	94%	26%	68%	83	42
	Female	32%	100%	30%*	76%	96	13*

Only 12 and 14 percent of the junior and senior residents respectively mentioned that they feel scare of infecting HIV during accessing Post-surgical inpatients J/S OR (95% C.I): 0.85 (0.3-0.9) . (Table 2)

Table 2: Fear of infecting HIV/AIDS (Afraid of contacting in during clinical residency period (%))

Methods	Junior residents	Senior residents	J/S OR (95% C.I)
During Major Surgical Procedure	28%	18%	1.55(0.4-1.8)
During Minor Surgical Procedure	16%	11%	1.45 (1.1-2.6)
During Accessing OPD patients (through cuts and wounds)	42%	23%	1.82 (1.7-4.4)
During Accessing Post-surgical inpatients	12%	14%	0.85 (0.3-0.9)

J/S OR (95% C.I): Junior resident/senior resident Odds Ratio (95% Confidence Interval)

DISCUSSION

With the growing prevalence of HIV in Pakistan, a need was felt to evaluate the awareness, knowledge and perception regarding HIV in our healthcare workers, the surgical trainees in Sindh, Pakistan.

According to our study almost all male and female surgical residents were well aware about the basic facts of HIV i.e. its modes of transmission (94% male and 100% female) and how to deal with needle prick injuries (male 68% and female 76%). A similar study was conducted at a girls college in

Lahore which also showed the same outcome such as 95% people knew about the HIV/AIDS and 91.2% knew about its transmissibility and around 70% knew that it can be transmitted through sexual contact, infected needle prick, infected blood transfusion.¹⁰ Another study also showed that 77.3% students were familiar about HIV/AIDS and their mode of transmission.¹¹

Moreover, our study also pointed out that majority of the surgical interns were not aware of HAART treatment, only 26% males and 30% females were aware about HAART treatment. This can be a reflection of their inexperience, a finding also supported by another study which showed 36.1% students had low confidence in their education about HIV/AIDS and about 40% students were unaware of the inability of antiviral to treat HIV/AIDS.¹²

Our study also showed that even though almost all trainees knew the modes of transmission yet they still had the dilemma of having close contact with HIV infected persons as shown by our statistics that both senior (23%) and junior (42%) trainees were most frightful of getting transmitted of HIV was when they were facing HIV patients in OPD. There should have a positive attitude towards the emerging disease. Having said that Pakistan is a developing country¹³ with a literacy rate of 54.9%¹⁴ yet similar results were shockingly seen in developed countries too as depicted in another study conducted in New Jersey medical school (United states) and low income countries; Benin medical school (Africa, Nigeria).¹⁵ One study done in California showed that 40% physicians refused to deal with HIV patients or either referred them to other physicians.¹⁶ Another study was conducted in University Sains Malaysia which

also showed that students showed less willingness to assist and treat the HIV positive patients.¹² These studies show sufficient evidence that healthcare workers have a negative attitude towards HIV. This could be one of the fundamental reason of the growing prevalence of this fatal disease as these misconceptions could lead to their unwillingness to treat these patients and provide them the best medical care.

Government role is particularly important to shed some light into this topic by holding awareness programs in colleges, universities and hospitals, creating HIV/AIDS organizations and lastly also look into medical institutes curriculum on this topic.

CONCLUSION

The present study shows that the awareness about the HIV/AIDS, its mode of transmission, knowledge regarding the dealing with needle prick and knowledge regarding the vertical transmission among junior and senior surgical residents is adequate. However despite the fact that there is high level of awareness among surgical residents still have fear to be infected by HIV/AIDS. There is very less awareness of Heart treatment among the surgeons trainees of Pakistan.

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