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Original Article

Knowledge, Attitude and Practice regarding management of HIV /AIDS among Postgraduate Medical Internee working in Tertiary Hospitals of Karachi

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Abstract:

Introduction: In this modern era the number of new HIV infections has dropped; but Pakistan remains among few regional countries witnessing an increase in cases. On the other hand most, Pakistani people have inadequate knowledge regarding HIV/AIDS. In a study conducted in Pakistan concluded that it is a mutual misconception in overall population or society is that being Muslim, HIV cannot be contracted.
Objective: To assess the knowledge, attitude, and practice about HIV/AIDS among post-graduate medical Doctor of Medicine Working in the tertiary care Hospitals of Karachi.
Methodology: This descriptive cross-sectional study was done at three randomly selected tertiary care hospitals of Karachi. All the postgraduates' medicine's trainee of three hospitals were approached for data collection. The data was collected by the principal investigator through structured questionnaire based on 31 questions regarding knowledge, attitude, practice and management of HIV/AIDS patients by the participants. The study duration was 6 months. SPSS version 24 was used to analyze data.
Results: The study showed that the one third of participants (35.3%) had adequate knowledge regarding HIV/AIDS, whereas large number of internees had adequate attitude (69.7%) towards HIV Patients, and almost one fourth participants had adequate practice and management (26.1%) approach towards HIV/AIDS cases.
Conclusion: The Postgraduate internee has sufficient attitude, while poor knowledge and practices towards HIV/AIDS cases. To improve HIV/AIDS management strategy, it is highly recommended to create awareness among health care provider as well as general population through emphasis on all components of KAP.

Keywords: KAP, HIV, AIDS, tertiary care hospital.

Introduction

In this modern era the number of new HIV infections has dropped; but Pakistan remains among few regional countries witnessing an increase in cases.[1] The 1st case of AIDS in Pakistan was recorded in 1987 in Lahore city [2,3] since than number has raised dramatically in Pakistan, 97,400 cases of HIV/AIDS were estimated in 2009, while 6,000 cases were registered during year 2010. This graph is on the rise with the way of time. It is necessary to develop and implement policy to control this deadly disease [1, 4] Deadly virus leading to syndrome (AIDs) continues to grow in the country with an estimated 133,529 people infected – less than even one percent (1%) of the total population 207 million inhabitants of the country. The estimated highest number in Punjab around (66,059) and lowest in Khyber-Pakhtunkhwa (3,203); Sindh (5,699) at the third position, Baluchistan (7,318) placed at the second position. HIV prevalence is highest among

people who inject drugs at a rate of 38.4%; people who are transgender, sex workers were second with 7.5%, male sex workers at 5.2%, and men having homosexual intercourse at 5.1%. Curiously, female sex workers are lowest rated among the at-risk groups at 2.2%. Currently registered cases in NACP are (23,783), according to NACP 13,384 are currently receiving ARV therapy.[1, 5] As HIV/Aids is widespread, it has become a double challenge for healthcare professionals with regards to their interaction to patients and the need to guard themselves using preventive procedures in clinical practice [6].

In Middle East and North Africa (MENA region) with the lower number of populations living with HIV, but now it is spreading at a rapidly increasing rate. For Pakistan, the estimated prevalence among general population remains low (i.e. 0.14%) [7, 8.]

The route of transmission for HIV in Pakistan is changing, and unsafe sexual practices results in rising number of infections. It is a stigma for individuals with this deadly HIV/AIDS and transmission fear is a major elements that contribute to negative attitudes of health care providers towards HIV. In the Era of 1990s various knowledge, attitudes and practice (KAP) studies related to HIV have been conducted [6, 9] however their reliability, validity, and generalizability have been questioned [7, 10.]

Health is the basic need of everyone and it is also the responsibility of the state to provide basic health needs to population but in developing countries especially in Pakistan health care system is still poor, not at whole but somewhere unsafe blood transfusion practices and religious norms and existing cultural are mostly responsible for the high prevalence of viral hepatitis especially Hepatitis B and Hepatitis C and a low prevalence of HIV is estimated in Pakistan. Reports in this reviewed study showed that 5 years Seroprevalence of Hepatitis B, Hepatitis C and HIV in Army and citizens who donated blood at the Armed Forces Institute of Transfusion (AFIT). the change in trends in Hepatitis B and Hepatitis C Seroprevalence in blood donors and a low HIV prevalence in the Pakistani population also supported by this valuable study.[10] HIV transmission through damaged skin also have been confirmed, but the risk of transmission is notably less than the risk of exposure through the mucous membrane[11], it was also documented that the transmission through body fluids or tissue may be much smaller than exposure through the blood of HIV infected person.[12]

In 2007, a report from WHO showed that about 33.0 million people around the globe were living with HIV/AIDS, among these five million were residing in Asia. In another report regarding AIDs epidemic update for Asia by UNAIDS and WHO, in Pakistan HIV epidemic is growing because of lack of knowledge on HIV and its routes of transmission. Peoples who at risk are not willing to change their behavior.[13,14] In a regional summary of AIDS epidemic update it is shown that the injecting drug users in Pakistan has the highest prevalence of HIV, it is raised in Karachi from 1% to 26% in a duration of two years (2004-2005), Quetta 24%, Sargodha12%, Faisalabad 10% while it is reported 8% in Larkana city. However other risk groups in Pakistan showed a low prevalence of HIV. General Practitioners in Pakistan may be facing 75% to 80% of citizens in case of illness, therefore they are the key health educators and health facilitator if they play their rule in the prevention of this deadly disease.[15]

Everyday probably four thousand patients die due to HIV/AIDS globally and more than 7000 thousand new HIV/AIDS cases occurred daily. Approximately 95% of infected people are unaware regarding their HIV/AIDS status. Due to the nature of transmission of HIV/AIDS especially sexual transmission, certain groups are at higher risk of contracting the disease including commercial sex workers, drug users or abusers especially intravenous, and those peoples who always mobile due to nature of jobs like military personnel, fishermen, prisoners and drivers especially of heavy vehicles.[16]

HIV is easily transmitted through blood, breast milk, vaginal fluid, semen, and vertical transmission. This deadly AIDS condition in human always causes progressive failure of the immune system which always results in the life-threatening opportunistic infections and malignancies. The mode of transmission for HIV is through blood, semen, vaginal fluid, breast milk and vertical transmission. Around 90% of the patients with AIDS are living in developing countries. The reason behind high prevalence is poverty and illiteracy. It was concluded by the Joint United Program on HIV (UN AID), HIV is a serious communicable disease leading to deaths across the globe. HIV/AIDS is a major and one of the most serious public health challenges. The Sub Saharan Africa region (the region most affected by HIV epidemic) accounts for 70% of global total new HIV person. In Canada during 2011, 23% of women were HIV positive among them 87.6% were women of reproductive age group.

Pakistan is at high risk for the spread of HIV infection but still identified with low prevalence. Women are at high risk as compared to men because of many biological, social and cultural as well as financial factors. For the prevention of HIV women can perform an important role. By having knowledge about HIV/AIDS, specially married women, can protect themselves and their children against it. HIV prevention is the only way to reduce the incidence of HIV. At present no vaccine for prevention of HIV infection is available, but it is possible to protect ourselves and others by education and awareness of its spread.[17]

Globally every year millions of peoples infected with this deadly syndrome. With medical advancement, still curable medicine is so far from medical science. A suppressive therapy with anti-viral therapy (ART or ARV) is the closest discovery for suppressing HIV/AIDS. The only beneficial and curable way is the prevention. Health education and health promotion can play an important role and at other hand suppressive therapy only can increase the life spam or suppress the virus.[18]

Prevalence of HIV is only 0.04% in general population in Pakistan. A survey conducted in Pakistan in 2005 noted that a large number of patients were treated in Pakistan. In Pakistan prevalence is still low but the virus spreading with the constant speed it may due to unsafe sex, intravenous drug addiction and

unsafe blood transfusion. In Pakistan men are highly infected as compared to women. Another scenario is that Pakistani people have inadequate knowledge regarding HIV/AIDS. In a study conducted in Pakistan concluded that it is a mutual misconception in overall population or society is that being Muslim, HIV cannot be contracted.[19]

The objective of this study was to assess the knowledge, attitudes and behavior of post-graduate medical students of medicine working in the Government Hospitals of district south Karachi with regards to risk of HIV infection at the workplace.

Methodology:

This cross-sectional study was carried out from June through November 2018. The FCPS part II trainees in Medicines were assessed with regards to their knowledge, attitude, practice, and management towards HIV/AIDs. Among all tertiary level care public hospitals, National Institute of Child Health (NICH), National Institute of Cardiovascular Diseases (NICVD), Jinnah Postgraduate Medical Center (JPMC) were selected randomly. The study population; consisting of FCPS part II, 1st, 2nd 3rd and 4th year trainees; were asked to fill the questionnaire. Total 65 participants were interviewed. A closed-ended standard questionnaire was developed and validated under the supervision of Consultant Epidemiologist at Baqai Medical University, Karachi. The sample size was calculated using highest HIV prevalence among people who inject drugs at a rate of 38.4%[1], keeping margin of error at 10%, the sample size (n=65) calculated using following formula.

$n = z^2 (p)(1-p) / c^2 = (1.65)^2 * (0.384) * (1-0.384) / (0.1)^2 = 0.643991 / 0.01 = 64.399 = 65 = 2.7225 * 0.384 * 0.616 / 0.01, = 0.643991 / 0.01 = 64.39 = 65$

$z = 1.65$

$p = 0.384$

$c = 0.1$

The ethical approval was taken from Institutional review board, National Institute of Child Health, Karachi. The informed written consent was taken prior to each interview and participants were selected voluntarily. The structured self-administered questionnaire in English was developed using United Nations Aids Control program guidelines (UNAIDS 2017). The questionnaire was pretested (pilot study) to made it reliable and validated. Each participant was briefed about the purpose of the study and when consented was asked to fill questionnaire in the presence of the researcher. The questionnaire is divided into four sections. The first section includes 5 questions on demographic characteristics of FCPS part II trainee i.e., age, gender, year of training and year of graduation, passing year of part 1 FCPS. The second section of the questionnaire includes 11 questions to test the knowledge of participant regarding the HIV/AIDs, the third section comprises of 08 questions to assess attitude and practice and the last section comprises of 12 questions on management assessment of HIV/AIDs. The questionnaire collected from the randomly selected hospital on the same day once filled out by participants.

The data was entered and analyzed using SPSS version 23. All categorical variables were presented in frequencies and percentages. For continuous variables mean and standard deviation was calculated.

Results:

During current study 65 participants were interviewed. The demographic characteristics of the study participates are shown in table 1. The mean age of participants was 29.6 ±3.34 years, female participants were 67.75%, while 32.3%% were males. About (47.7%) participants were in last year of training. Most of participants (55.5%) were passed their graduation in last 5 years. The FCPS part I mean years 2013.29 ±3.85.

Table 1 Demographic Characteristics of participants

Variables (n=65)	Frequency (%)/Mean (S.D)
Age	29.6=3.34
Gender	
Male	21 (32.3)
Female	44 (67.7)
Year of training	
First year	12 (18.5)
Second year.	16 (24.6)
Third year	6 (9.2)
Forth year.	31 (47.7)
Year of graduation	
Less than 5 years	36 (55.4)
more than 5 years	29 (44.6)
Passing year of part I	2013.29=3.85

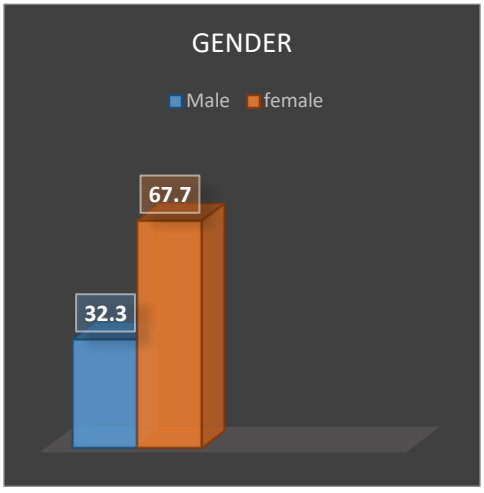

Figure 1: Gender Distribution

Table 2 shows that most of the participants (96.9%) had good knowledge regarding link between HIV and AIDs, whereas (63.1%) of participants had knowledge that infected person with HIV develops antibodies within 6 months. The response of 43.1% participants was that it is hard to kill HIV virus even outside the

body. Whereas 90.8% of participants had good knowledge a patient is known to have HIV/AIDs when he/she tested for HIV. 64.6% had average knowledge regarding no one know by looking if someone is HIV/AIDs positive. Regarding the history of HIV/AIDs, 43.1% said that HIV/AIDS the first case was reported in 1987. Only 30.8% mentioned that first case of HIV aids was reported in Lahore. 41.5% of participants knew that HIV/AIDS is highly prevalent in Punjab. Mostly (78.5%) knew that HIV/aids is highly prevalence among injections drug users. Only 38.5% of participants mentioned that world first confirmed case of HIV was from Kinshasa (Democratic republic of Congo). while (49.2%) knew that Aids were finally named in 1 April 1986.

Table 2: Knowledge of the participants.

Variables (n=65)	Frequency (%)
1. What is the link between HIV and AIDS?	
a) HIV is a virus that attacks the immune system, AIDS refers to a set of symptoms and illnesses.	63 (96.9)
b) HIV refers to a set of symptoms and illnesses, AIDS is a virus that attacks the immune system	2 (3.1)
c) Don't know.	00
2. Persons infected with HIV will likely develop antibodies within 6 months.	
a) Yes	41 (63.1)
b) No	16 (24.6)
c) Don't know.	8 (12.3)
3. Even outside the body, the HIV virus is hard to kill.	
a) Yes	28 (43.1)
b) No	31 (47.7)
c) Don't know.	6 (9.2)
Presenting symptoms	
1. A patient is known to have HIV/ Aids if s/he has tested positive for HIV.	
a) Yes	59 (90.8)
b) No	5 (7.7)
c) Don't know.	1 (1.5)
2. One cannot know by looking if someone is HIV/aids -positive.	
a) yes	42 (64.6)
b) No	15 (23.1)
c) Don't know.	8 (12.3)
History	
1. When was HIV / Aids patient report in Pakistan?	
a) 2000	6 (9.2)
b) 1971	9 (13.8)
c)1987	28 (43.1)
d) don't know	22 (33.8)
2. In which city of Pakistan HIV /AIDS was first time reported?	
a) Islamabad	09 (13.8)
b) Karachi	13 (20)
c) Lahore	20 (30.8)
d) don't know	23 (35.4)
3. In which province of Pakistan HIV /AIDS High prevalence?	
a) Sindh	08 (12.3)
b) Punjab	27 (41.5)
c) Baluchistan	21 (32.3)
d) don't know	09 (13.8)
4. In which group HIV / Aids is highly prevalent in Pakistan?	
a) Sex worker	8 (12.3)
b) Injection users	51 (78.5)
c) Cross gender	5 (7.7)
d) don't know	1 (1.5)
5. Do you know the world first verified case of HIV was from a blood sample Taken in 1959 from a man living in?	
a) California (USA)	17 (26.)
Kinshasa (Democratic Republic of Congo)	25 (38.5)
c) Don't know.	23 (35.4)
6. Aids were finally named in?	
a) 1 April 1986	32 (49.2)
b) September 1982	13 (20)
c) 14 august 1947	1 (1.5)
d) don't know	19 (29.2)

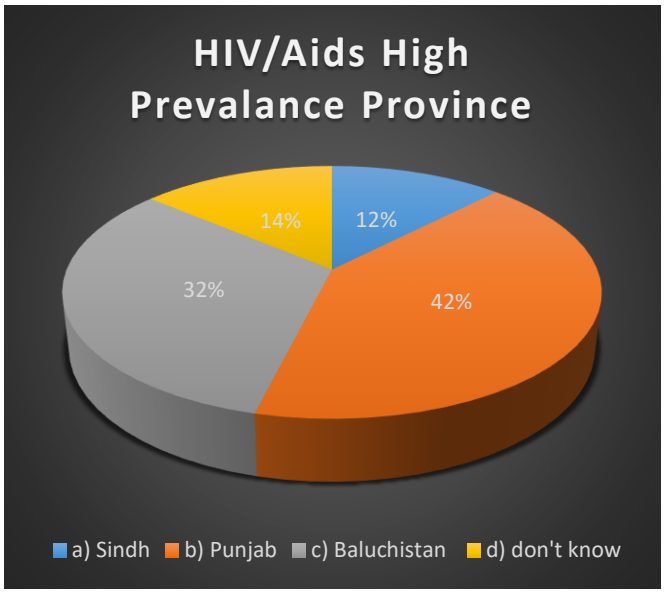

Figure 2: Participant's response regarding prevalence of HIV/AIDS.

Table 3 shows that regarding attitude of participants, mostly (93.8) were strongly agree that prevention is better than cure. Regarding HIV/Aids curable, most participants (43.1%) disagree and (23.1%) were strongly disagree. Mostly (98.4%) agree that health education regarding HIV/Aids should be given to general population. Mostly participants (70.8%) disagree that people with Aids deserve what they get. About (62.3%) were agree that children who get Aids from their mothers are more deserving for treatment than people who get Aids by sexual partner, while (53.8%) were of opinion that those get Aids after blood transfusion are more deserving of treatment. Only (12.3%) were agree that people who have many sexual partners deserve to get Aids. While (40%) think HIV/AIDS-positive women should not have children.

Table 3: Attitude of Participants.

Variables (n=65)	Frequency (%)
1. Do you think prevention is better than cure?	
a) Strongly agree	61 (93.8)
b) Agree	01 (1.5)
c) Neutral	00
d) Disagree	00
e) Strongly disagree	03 (4.6)
2. Do you think HIV/AIDS is curable?	
a) Strongly agree	00
b) Agree	14 (21.5)
c) Neutral	08 (12.3)
d) Disagree	28 (43.1)
e) Strongly disagree	15 (23.1
3. Do you think health education regarding HIV/AIDS should be given to general Population?	
a) Strongly agree	50 (76.9)
b) Agree	14 (21.5)
c) Neutral	01 (1.5)
d) Disagree	00
e) Strongly disagree	00
4. Do you think most people with AIDS deserve what they get?	
a) Strongly agree	01 (1.5)
b) Agree	12 (18.5)
c) Neutral	06 (9.2)
d) Disagree	25 (38.5)
e) Strongly disagree	21 (32.3)
5. Do you think children who get AIDS from their mothers are more deserving Treatment than people who get AIDS by sexual partner?	
a) Strongly agree	28 (43.1)
b) Agree	19 (29.2)
c) Neutral	13 (20)
d) Disagree	05 (7.7)
e) Strongly disagree	00
6. Do you think People who get AIDS through a BT are more deserving of treatment than people who get AIDS through sexual partner?	
a) Strongly agree	01 (1.5)
b) Agree	34 (52.3)
c) Neutral	08 (32.3)
d) Disagree	08 (12.3)
e) Strongly disagree	01 (1.5)
7. Do you think people who have many sexual partners deserve to get AIDS?	
a) Strongly agree	02 (3.1)
b) Agree	06 (9.2)
c) Neutral	29 (44.6)
d) Disagree	09 (13.8)
e) Strongly disagree	19 (29.2)
8. Do you think HIV/ aids-positive women should not have children?	
a) Strongly agree	25 (38.5)
b) Agree	1 (1.5)
c) Neutral	19 (29.5)
d) Disagree	11 (16.9)
e) Strongly disagree	9 (13.8)

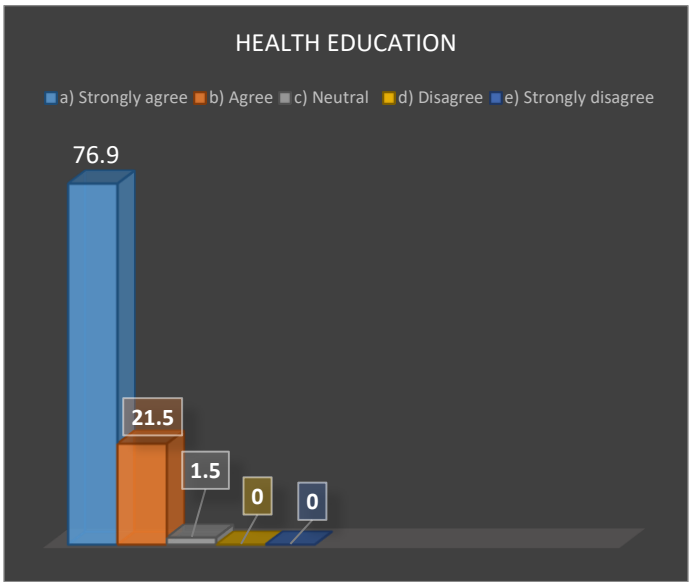

Figure 3: Health education regarding HIV/AIDS should be given to general population

Table 4 showed practice and management profile of participants, 50.8% of participants said ART should be initiated in everyone having HIV at any CD4 cell count, while 72.9% were of opinion that there are four types of drugs used in HIV/AIDS. 72.3% recommended ART for all HIV infected individuals to reduce the risk of disease progression. While 70.8% recommended ART for HIV prevention. Only 32.3% had correct practice knowledge as per WHO initial regimen for adults, while 47.7% had correct practice knowledge of WHO regimen for children less than 3 years of age. Only 50.8% had correct practice knowledge of WHO regimen for aged between 3 years to 10 years. 46.2% were of opinion that it is important to consider older patients are more likely to be on multiple non-HIV medication and consider drug interaction with any potential HIV medication should always be considered.

Table: 4 practice and management profile of participants of participants.

Variables (n=65)	Frequency (%)
1. Antiretroviral therapy (ART) should be initiated in everyone living with HIV at any CD4 cell count.	
a) Yes	33 (50.8)
b) No	19 (29.2)
c) Don't Know	13 (20)
2. How many drugs are used as ART in HIV aids?	
a) Four	50 (76.9)
b) Six	15 (23.1)
c) Don't Know	00
3. Antiretroviral therapy (ART) is recommended for all HIV-infected individuals to reduce the risk of disease progression.	
a) Yes	47 (72.3)
b) No	05 (7.7)
c) Don't Know	12 (18.5)
4. ART also is recommended for HIV-infected individuals for the prevention of transmission of HIV.	
a) yes	46 (70.8)
b) No	11 (16.3)
c) Don't Know	08 (12.3)
5. Patients starting ART should be willing and able to commit to treatment and understand the benefits and risks of therapy and the importance of adherence. Patients may choose to postpone therapy, and providers, on a case-by-case basis, may elect to defer therapy based on clinical and/or psychosocial factors.	
a) Yes	34 (52.3)
b) No	13 (20)
c) Don't Know	18 (27.7)
6. The WHO preferred initial regimen for adults and adolescents as of June 30, 2013, is.	
Tenofovir + Lamivudine (or Emtricitabine) + Efavirenz	21 (32.3)
Ribavirin + Lamivudine (or Emtricitabine) + Efavirenz	19 (29.2)
Don't Know	25 (38.5)
7. The WHO recommends for children less than 3 years:	
A) Abacavir (or Zidovudine) + Lamivudine + Lopinavir + Ritonavir	31 (47.7)
B) Abacavir (or Zidovudine) + Lamivudine + Lopinavir + Lincomycin	15 (23.1)
c) Don't Know	19 (29.2)
8. For children 3 years to less than 10 years and adolescents <35 kilograms:	
A) Abacavir + Lamivudine + Efavirenz	33 (50.8)
B) Betamethasone + Lamivudine + Efavirenz	07 (10.8)
c) Don't Know	25 (38.5)
9. ART for mothers both before and during delivery and to mothers and infants after delivery are recommended to substantially reduce the risk of transmission.	
a) Yes	46 (70.8)
b) No	08 (12.3)
c) Don't know	11 (16.9)
10. The risk of transmission from mother to child is proportional to the plasma viral load of the mother. Untreated mothers with a viral load >100,000 copies/ml	
a) Yes	34 (52.3)
b) No	14 (21.5)
c) Don't know	17 (26.2)
11. The risk when viral loads are < 1000	

copies/ml are less than 1%.	
a) Yes	28 (43.1)
b) No	09 (13.8)
c) Don't know	28 (43.1)
12. It is important to take into account that older patients are more likely to be on multiple non-HIV medications and consider drug interactions with any potential HIV medications.	
a) Yes	30 (46.2)
b) No	12 (18.5)
c) Don't know	23 (35.4)

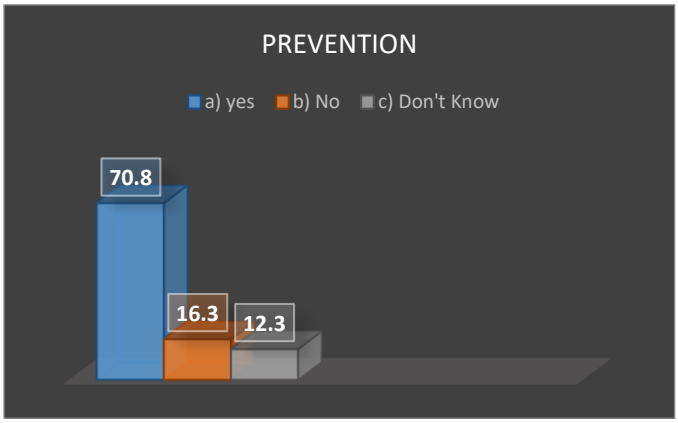

Figure 4: ART also is recommended for HIV-infected individuals for the prevention of transmission of HIV.

Discussion:

In this study, WHO, UNAIDS and NACP guidelines were followed to assess the knowledge, attitude and practices of FCPS Part II trainee of medicine regrading HIV/AIDS. Belonging to the healthcare system, it's important not to ignore the potential risk of transmission of infection which may affects not only FCPS Part II trainee and patients but also the assistants and laboratory technicians associated with them.

For current study, 67.75% participants were females and 32.3% were males, overall 47% of the participants were in their last year of training. We found that 96.9% participants of the current study had good knowledge regarding link between HIV and AIDs, this finding is in agreement with study of UNAIDS where 97% participants were having identical knowledge[6]. The knowledge that a person infected with HIV develop antibodies within 6 months was found among only 40% of the participants[6], a finding which is in sharp contrast to current study, where 63.1% participants were having this knowledge. In our study a poor knowledge (43.1%) were response that HIV virus hard to killed even outside the body. Quite better result (69%) were in study on patients in Tanzania by UNAIDS[6] where (90.8%) of participants had good knowledge a patient is known to have HIV/AIDs when he/she tested for HIV. About (64.6%) had average knowledge regarding no one know by looking if someone is HIV/AIDs positive. Regarding history of HIV/AIDs (43.1%) said that HIV/AIDS first case was reported in 1987. Only (30.8%) had said that first case of HIV Aids was reported in Lahore. Only (41.5) of participants were knowing, HIV/Aids is highly prevalent in Punjab. Mostly (78.5%) knew that HIV/Aids is highly prevalent among injections drug users. Only (38.5%) of participants were knowing that the world's first verified case of HIV was from Kinshasa (Democratic Republic of Congo), while (49.2%) knew that Aids were finally named in 1 April 1986.

In our study regarding attitude of participants, most (93.8) were strongly agree that prevention is better than cure. Regarding HIV/Aids curable, 43.1% participants disagree and 23.1% were strongly disagree. Mostly (98.4%) agree that health education regarding HIV/Aids should be given to general population. Most participants (70.8%) disagree that people with Aids deserve what they got, in another study the result was 12.3% conducted by UNAIDS[6]. About (62.3%) were agree that children who get aids from their mothers are more deserving for treatment than people who get aids by sexual partner, in another study[20] it was (35.3%). While (53.8%) blood transfusion are more deserving of treatment in another study it was (24.5%). Only (12.3%) were agree that people who have many sexual partners deserve to get Aids. While (40%) think HIV/AIDS positive women should not have children.

In this study practice profile of participants showed that about 50.8% of participants said ART should be initiated in everyone living with HIV at any CD4 cell count, according to W.H.O guide line it should be initiated in every on at any CD4 cell count. [21] While (72.9%) said there are four classes of drugs used in HIV/Aids, but correct answer was there 3 classes.[21] Whereas 72.3% recommended ART for all HIV-infected individuals to reduce the risk of disease progression. While (70.8%) were also recommended ART for HIV prevention. Brain G. Williams et al. concluded that ART reduced viral load and restores immune systems.[22] Only (52.3%) knew that patients starting ART should be willing and able to commit to treatment and understand the benefits and risks of therapy and the importance of adherence. Patients may choose to postpone therapy, and providers, on a case-by-case basis, may elect to defer therapy on the basis of clinical and/or psychosocial factors.[23] Only 32.3% had correct practice knowledge of W.H.O initial regimen for adults. While 47.7% had correct practice knowledge of W.H.O regimen for children less than 3 years. Whereas only 50.8% had correct practice knowledge of W.H.O regimen aged between 3 years to 10 years. Only 46.2% were important to take into account that older patients are more likely to be on multiple non-HIV medication and consider drug interaction with any potential HIV medication.[21]

Mostly (70.8%) answered correctly that ART for mothers both before and during delivery and to mothers and infants after delivery are recommended to reduce the risk of transmission substantially .[24] Only 52.3% knew that the risk of transmission

from mother to child is proportional to the plasma viral load of the mother. Untreated mothers with a viral load >100,000 copies/ml have a transmission risk of over 50%.[22] About 43.1% knew that the risk when viral loads are < 1000 copies/ml are less than 1%.[21] About 46.2% knew that it is important to take into account that older patients are more likely to be on multiple non-HIV medications and consider drug interactions with any potential HIV medications.[25]

Conclusion:

There is a need to improve the awareness of both health care provider and general population.

Conflict of Interest:

All the authors declare no conflict of interest

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