

Exploring Knowledge and Attitude regarding Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome among Cairo University Medical Students

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Abstract

Background: Although Egypt is considered to be in the low epidemic stage of HIV infection yet the disease is considered as a threat because it affects young adults. Medical students need to have appropriate knowledge and attitudes about HIV and AIDS as they will play a key role in prevention and control. The aim of the study was to explore the knowledge and attitudes of medical students about HIV/AIDS. **Methods:** A cross-sectional study was carried out in Faculty of Medicine, Cairo University. A sample of 665 (N=665) fourth year medical students agreed to participate in the study. Data were collected using an anonymous self administered questionnaire. Descriptive and inferential statistics were employed for the data analysis using SPSS version 18. **Results:** Overall, students had correct knowledge about HIV and AIDS as well as positive attitude towards AIDS patients. Regarding knowledge about modes of transmission; overall the knowledge score about routes of transmission of HIV was high. The percent knowledge score was 72.1 ± 9.3 , the median was 73.2, while the inter-quartile range was 65.9 -78.1. A few items however presented contradictory results from the overall score of the knowledge scale. Participants who reported a willingness to care for people with AIDS were significantly more knowledgeable and held more positive attitudes towards people with AIDS, while about half of the sample denied their willingness to live in the same community with AIDS patients. The primary sources of information for the participants were; their faculty (94%), and internet (44%). **Conclusion:** Medical curriculum programs need to be restructured to

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ensure that students gain the necessary accurate knowledge and appropriate attitudes about HIV and AIDS.

Keywords: HIV, AIDS, knowledge, attitudes, sexual behavior, medical students.

1 Introduction

[1] Stigma and discrimination remain a major challenge hampering the effective delivery of key services; as treatment of people living with HIV. As reported by a study conducted by ESPSRH, UNAIDS, UNICEF, 2004; almost 30% of surveyed people living with HIV prefer not to attend to a healthcare facility in fear of being stigmatized or rejected.

[2] Stigma and discrimination are daily realities for people living with HIV and for people belonging to groups particularly vulnerable to HIV infection. Members of these groups are already stigmatized and are more likely to face more discrimination than others when diagnosed with HIV, including refusal to provide services.

[3] Half of PLHIV would prefer not to disclose their status. Shockingly, 71.3% of healthcare providers' reports they would refuse treating PLHIV.

[4,5] Thus, medical students through their education and clinical training should acquire knowledge that will change their attitudes and influence their behaviors both in the prevention of transmission of the virus, and positive attitudes for effective caring for these patients. With the continuing increase in the incidence of HIV and AIDS medical staff require current knowledge and skills to ensure that they are able to provide high quality and effective care to people living with HIV and AIDS .

[6] In the current AIDS pandemics, equipping health professional students with adequate knowledge and positive attitude is necessary to produce graduates who can deliver appropriate intervention to patients infected with HIV or who have developed AIDS.

[7] There are many factors related to negative PLHIV related attitudes, such as a low Knowledge level and fear of the possibility of becoming infected.

[8,9] At present, most of the studies published on this topic are concerned with testing attitudes, knowledge and behavior of health personnel in order to plan educational interventions .

The current study aimed to explore the knowledge and attitude of medical students regarding HIV/AIDS, believing that proper comprehension about the previously mentioned disease paves a way for better attitude and consequently better services provided by medical staff for HIV/AIDS patients.

2 Preliminary Notes

2.1 Abbreviations

AIDS: Acquired Immunodeficiency Disease

HIV: Human Immunodeficiency Virus

PLHIV: People living with HIV

3 Main Results

Descriptive Data:

A total of 665 fourth year medical students participated in the present study. Of the respondents 53.1% were males and 46.9% were females. The mean age of the participants was 20.6 ± 0.9 years. The significant level of p value was determined at $p < 0.05$

Knowledge and Attitudes about HIV/AIDS:

As illustrated in table 1 the majority of participants (93.7%) mentioned the faculty of medicine as the main source of information about HIV and AIDS, followed by the internet sources.

When asked about the difference between HIV and AIDS more than two thirds of the students wrongly responded that there is no difference between the terms HIV and AIDS. Regarding knowledge about modes of transmission; overall the knowledge about route of transmission of HIV was high. The percent knowledge score was 72.1 ± 9.3 , the median was 73.2, while the inter-quartile range was 65.9 -78.1.

As illustrated in table 2, 99.4% of respondents knew that HIV can be transmitted through sexual intercourse. The majority of students were also aware that HIV can be transmitted through sharing needles or syringes.

However, there was confusion about some routes of transmission. For example, only 69.5% of the participants correctly answered that "insect bite" does not spread HIV. Nearly one fifth of respondents did not know if HIV infection can be transmitted through table utensils or not. Only two third of the respondents correctly answered that HIV can be transmitted from mother to child.

Table 3 also summarizes the knowledge of the students about prevention of HIV. A satisfactorily high level of knowledge was reported by students when they were asked questions such as: Can HIV be prevented by not sharing needle or syringe? Does using condoms during sexual intercourse protect against HIV infection? Can HIV be prevented by raising awareness about HIV and AIDS? Surveillance for renal dialysis centers, blood clinics, venereal diseases is essential for prevention?

However, in response to the question whether "HIV can be transmitted by sharing table utensils or sharing toilets?" Only (63.9%) and 59.8% replied "no".

Overall, respondents had a mean 72.1 ± 9.3 (± 9 SD) score of knowledge. Accordingly, 64.8% were classified as having an excellent level of knowledge (equal to or more than 85% correct answers).

When asked about their knowledge about services for prevention and control of HIV and AIDS; 57.9% answered that they don't know whether there is a separate program at the Ministry of Health for HIV and AIDS prevention and control. More than two thirds didn't know the phone number of the AIDS hotline and quarter of the participants reported that they don't know any of the organizations specialized in HIV and AIDS.

Attitude of Students Regarding HIV and AIDS:

As shown in table 4; students exhibited positive attitudes towards their willingness to provide medical care for HIV patients. However, less than half of the students reported their willingness to live in the same community with HIV/AIDS patients. While they showed positive responses on issues as performing surgery or conducting labor to an HIV patient. The majority didn't agree that PLHIV should be isolated or not allowed to attend schools.

The percent attitude scores was (67.7 ± 15.8), 15.2% had poor attitude, 35.9% had good attitude and 48.9% had excellent attitude towards PLHIV and also towards considering

HIV/AIDS as a problem that worth care in Egypt. About 39% were classified as having negative attitude towards PLHIV because they scored less than the mean.

Relations of Knowledge & Attitude Scores with Age & Sex:

Age and sex variables showed no significant difference in relation to knowledge and attitude percent score as the P value was (0.79 and 0.48) consecutively.

Associations of Knowledge with Attitudes:

Binary logistic regression reports that level of knowledge significantly contributed to level of attitudes as shown in *Table 5*. Knowledge % score showed significant difference with attitude % score, where the P value was (< 0.001).

3.1 Advantages

The study handles a very important issue that aroused the attention of the participant as it is linked to their vocational responsibilities and the humanity nature of their future job.

3.1.1 Cost

The study was carried out in a school environment involving medical students, thereby making the research participants very selective. Any generalization of the results of this study must be made with caution. More so, HIV/AIDS are sensitive topics that many young people may be shy to talk about openly.

4 Labels of Figures and Tables

Table 1: Sources of Information about HIV and AIDS

	Yes		No		I do not know	
	N	%	N	%	N	%
Source of information						
TV	256	38.5	409	61.5	0	0.0
Internet	295	44.4	370	55.6	0	0.0
Radio	31	4.7	634	95.3	0	0.0
Your faculty	623	93.7	42	6.3	0	0.0
Others	83	12.5	582	87.5	0	0.0

(More than one answer was given by the students)

Table 2: Knowledge regarding transmission of HIV/AIDS (N: 665)

Questions with correct response	Number (%) reporting the correct responses	
	n	%
People can get HIV infection from		
Unprotected sexual intercourse(yes)	661	99.4
Infected syringes and instruments(yes)	653	98.2
Receiving infected blood(yes)	639	96.1
Needle stick (yes)	560	84.2
Breast feeding(yes)	447	67.2
Mother to child during pregnancy(yes)	606	91.1
Insect bites(no)	462	69.5
Sharing food with an infected person(no)	580	87.2
Swimming pools(no)	539	81.1
Sharing table utensils(no)	474	71.3
Shaking hands(no)	605	91.0

Table 3: Knowledge about Preventive Methods

<i>Questions with correct responses</i>	<i>Number (%) reporting the Correct answer</i>	
	No	%
Prevention methods		
HIV /AIDS patient should cover his wounds if any.	575	86.5
Use sterile syringes.	649	97.6
Use condoms.	587	88.3
Not sharing table utensils with others.	425	63.9
Not sharing toilets	398	59.8
Surveillance for renal dialysis centers , blood clinics, venereal diseases is essential for prevention	632	95.0

Table 4: Attitudes towards People Living with HIV/AIDS (N: 665)

Questions with positive responses	Number % reporting the specified responses	
	N	%
Do you think HIV/AIDS is a problem that worth care in Egypt(yes)	525	78.9
Are you willing to live in the same community with an HIV/AIDS patient (yes)	324	48.7
Are you willing to provide medical care for an HIV/AIDS patient (yes)	548	82.4
Are you willing to work with an HIV/AIDS patient(yes)	418	62.9
Do you think that		
People with HIV/ AIDS should be isolated (no)	433	65.1
Children with HIV/AIDS shouldn't attend school (no)	471	70.8
HIV/AIDS patients should be punished (no)	616	92.6
An HIV/AIDS patient is an immoral person(NO)	579	87.1
If you are responsible for providing medical care to HIV/AIDS patient would you be keen to know the mode of transmission (yes)	458	68.9
Would this make a difference in your attitude(no)	282	42.4
Do you think that this disease is a punishment that the patient deserves(no)	535	80.5
Would you accept to perform a surgery(yes)	356	53.5
Would you accept to conducting labor for an HIV/AIDS patient(yes)	377	56.7
Do you accept to work for advocating for the human rights for HIV/AIDS patients(yes)	524	78.8
Would you recommend an increase in the budget allocated for HIV prevention and control (yes)	586	88.1

Table 5: Associations of knowledge with attitudes

	Knowledge % score	Attitude % score
Attitude % score	r= 0.175, P <0.001	
Age	r= -0.021, P=0.594	r= -0.001, P=0.971
Sex		
Male	72.1 ± 9.5	67.3 ± 16.1
Female	72.1 ± 9.1	68.2 ± 15.5
P value	0.97	0.48

5 Conclusion

General speaking medical students had very good knowledge regarding the modes of transmission and preventive measures of HIV infection. The attitude towards HIV/AIDS patients is greatly influenced by the level of knowledge.

Thus it is concluded that health education about HIV/AIDS will positively influence the awareness and attitude of HIV prevention and care of HIV patients among medical students, therefore, a systematic and long-term program to improve awareness about HIV/AIDS is recommended among medical students.

ACKNOWLEDGEMENTS: I would like to express my gratitude to the Public health department, Faculty of Medicine, Cairo University and to the students who accepted to share in the study.

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