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STUDY TO ASSESS AWARENESS ABOUT HIV/AIDS AMONG MEDICAL STUDENTS

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ABSTRACT

The acquired immunodeficiency syndrome (AIDS) is a fatal illness caused by a retrovirus known as the Human Immunodeficiency Virus (HIV) which breaks down the body's immune system. Lack of awareness and misconceptions about HIV/AIDS in the general population is responsible for rapid spread and social stigma. This study aimed to assess knowledge and attitudes about HIV/AIDS among medical students in Jeddah, Saudi Arabia. An observational cross-sectional study was performed on 400 participants selected randomly from the medical students at Ibn-Sina National College. The assessment was carried out by obtaining a self-administered, structured questionnaire about knowledge and attitude of students about HIV/AIDS. Questionnaire obtained from Biradar et al., 2016 and included 13 items. The study sample included 108 male and 292 female and more than one third (36.3%) of the students in the sixth academic year. All students were conscious about HIV/AIDS disease and all of them except one had information about the causative agent (virus). The majority (70.3%) of students had gained information from doctors/health worker followed by other sources like media. More than half of them were aware of about the modes of transmission and preventive approaches. The results of the present study are encouraging as most of the students had good awareness regarding HIV/AIDS disease. Role of doctors/health worker and media are very important to spread the awareness among the general population. These measures will help to reduce the misconception and indifferent attitude towards the HIV infected patients.

KEY WORDS: ***Medical students, awareness, knowledge, HIV, AIDS.***

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INTRODUCTION

The acquired immunodeficiency syndrome (AIDS) is a fatal illness caused by a retrovirus known as the Human Immunodeficiency Virus (HIV) which breaks down the body's immune system, leaving the victim vulnerable to a host of life-threatening opportunistic infection, neurological disorders, or unusual malignancies.[1] According to the Joint United Nations Program on HIV/AIDS, approximately 36.9 million people globally were living with HIV while another 1.2 million died from AIDS-related illnesses.[2] However, incidence and prevalence rates vary across countries and regions.[3] It is now the leading cause of mortality in Africa and the fourth leading cause of death worldwide. [4] The World Health Organization Middle East and North Africa (MENA) region has the third fastest growing AIDS epidemic.[5] In the Kingdom of Saudi Arabia (KSA), the total number of HIV cases from 1984-2013 was estimated to be about 20,500. [6] In 2013, 1777 cases were newly diagnosed, 79% of them aged 15-49 years.[7] HIV can be transmitted via the exchange of a variety of body fluids from infected individuals, such as blood and blood products, breast milk, semen and vaginal secretions.[8] HIV/AIDS is diagnosed via laboratory testing and the presence of certain signs or symptoms.[9] HIV can be prevented by using a condom during sexual intercourse can decrease the risk of transmitting HIV and other sexually transmitted diseases, avoiding sharing needles and drug injection, health care workers should use gloves, masks, protective gowns, and shields in situations where exposure to contaminated blood and body fluids is possible.[10] The lack of awareness and misconceptions about HIV/AIDS in the general population is responsible for rapid spread and social stigma & discrimination in our country.[11] Many studies have revealed that early educational interventions can reduce the Knowledge Attitude Practice (KAP) gap among health professionals.[4-12-13] So the current study aimed to assess knowledge and attitudes about HIV/AIDS among medical students in Jeddah, Saudi Arabia.

Aim of the work: Study knowledge and attitudes towards HIV/AIDS among medical student in Jeddah, Saudi Arabia.

Objectives: To assess awareness about HIV/AIDS disease among medical students.

PATIENTS AND METHODS

This is an observational cross-sectional study at Ibn-Sina National College, aimed to study knowledge and attitudes towards HIV/AIDS among medical students in Jeddah, Saudi Arabia.

Technical design

Study design

An observational Cross sectional study

Study setting

Ibn-Sina National College, Jeddah, Saudi Arabia.

Target populations Medical students

Inclusion criteria

- College age
- Any academic year
- Male and female
- willing to participate

Exclusion criteria

- Who were not willing to participate were excluded from study.

Sample size and technique

Our sample was:

- After taking their informed consent,400 participants were included in the study(calculated online sample size calculation was 360 and increased to 400 to avoid missing data)
- *Sampling:* probability consecutive sampling
- The sample size was estimated using EPI INFO (Epidemiological Information Package) version 3.5.3.statistical packages assuming that the frequency was (20%)at a confidence interval of 95 % and power of 80%.
- *Sample technique:* The sample was chosen randomly from the medical students.

B-Operational design

Pilot study

A pilot study was carried out to evaluate the validity and reliability of the interviewed-based questionnaire applied on students, pilot had been done on 40students selected randomly were asked to fill out the questionnaire and not included in the total sample of the research work to ensure stability of the answers. This helps us in identification the time needed to fill in the questionnaire. Based on the result of pilot study some modifications and rearrangement of some questions were done.

Data collection tools

Questionnaire by Santosh M. Biradar. A self-administered structured questionnaire about knowledge and attitude of students about HIV/AIDS, Questionnaire obtained from BiradarS, et al, 2016.[1] The questionnaire included 13 items related to knowledge and attitudes. These items are categorized into three main parts.

Data management

The Collected data were recorded then presented and analyzed using SPSS (Statistical Package for the Social Sciences) version 22.0 and Epi info for windows version 3.5.3. Data were represented in tables as frequencies and percentages. Chi square was used for qualitative data and t-test and anova for quantitative data the results were considered statistically significant when the probability ($P < 0.05$) with confidence interval 95%.

Ethical considerations

Ethical considerations were taken through the whole study including approval of the study protocol by the department research review board (IHEC Ref No. : H-27-15032018) and (Protocol Identification: 024MP28022018), agreement of authorities to the study setting and informed consent from the participants before the interview and after explaining the purpose of the study and assuring them regarding data confidentiality, Only those who agreed were included and those who refused were excluded.

E. Constrains

Some obstacle in convincing students to participate in the research.

RESULTS

The study sample includes 400 students, 108 male and 292 females. There were taken from the first to the sixth year. It was observed that more than one third of the students in the sixth academic year with 36.3% from the whole sample (Table1 & Figure1).

Table 1

Demographic characteristics among students in the study

Demographic Character		**No**	**%**
Gender	Male	108	27
	Female	292	73
	Total	**400**	**100.0**
Academic year	1st	42	10.5
	2nd	44	11
	3rd	22	5.5
	4th	61	15.3
	5th	86	21.5
	6th	145	36.3
	Total	**400**	**100.0**

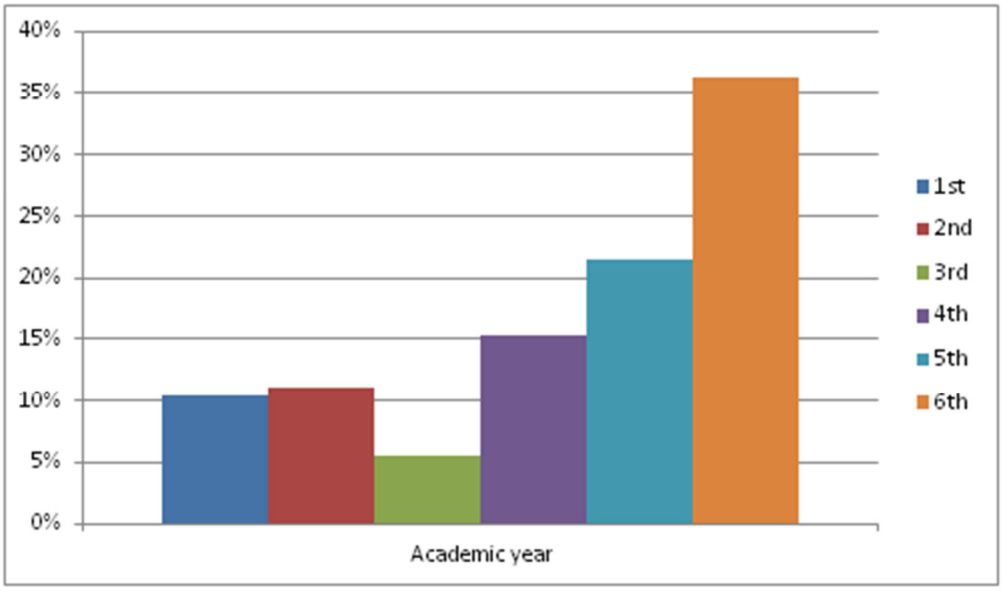

Figure 1
Academic distribution among students in the study

It was good to observe that all students about (100%) were conscious about HIV/AIDS disease and all of them except one had information about the causative agent (virus). Majority of the students (92.3%) were aware about availability of diagnostics test. Most of the students (85.8%) agreed that there is no cure for HIV. Some students (14.3%) were having misconception that there is a vaccine available for HIV infection (Table 2).

Table 2
Awareness of students about HIV/AIDS

Awareness of students		**No**	**%**
Conscious about HIV	Yes	400	100
	No	0	0.0
	Total	**400**	**100.0**
Causative agent	Virus	399	99.8
	Bacteria	zero	Zero
	Fungus	1	0.2
	Total	**400**	**100.0**
Diagnostic test	Clinical	31	7.8
	Blood	369	92.3
	Total	**120**	**100.0**
Disease is curable	No	343	85.8
	Yes	57	14.3
	Total	**400**	**100.0**
Vaccine not available	No	343	85.8
	Yes	57	14.3
	Total	**400**	**100**

Majority (70.3%) of students had gained information from doctors/health worker followed by other sources like media (TV, Internet, Radio, Newspaper) (21.8%), Friends & Family (3.5%) and others 4.5% (school curriculum, teachers etc). This study shows that doctors play a very important role in providing the students with information about the disease (Table 3, Figure 2)

Table 3
Knowledge of students about HIV/AIDS

Knowledge of students about HIV		No	%
New born infected	Yes	223	55.8
	No	177	44.3
	Total	**400**	**100.0**
Can get married	Yes	313	78.3
	No	87	21.8
	Total	**400**	**100.0**
Need to be isolated	Yes	46	11.5
	No	354	88.5
	Total	**400**	**100.0**

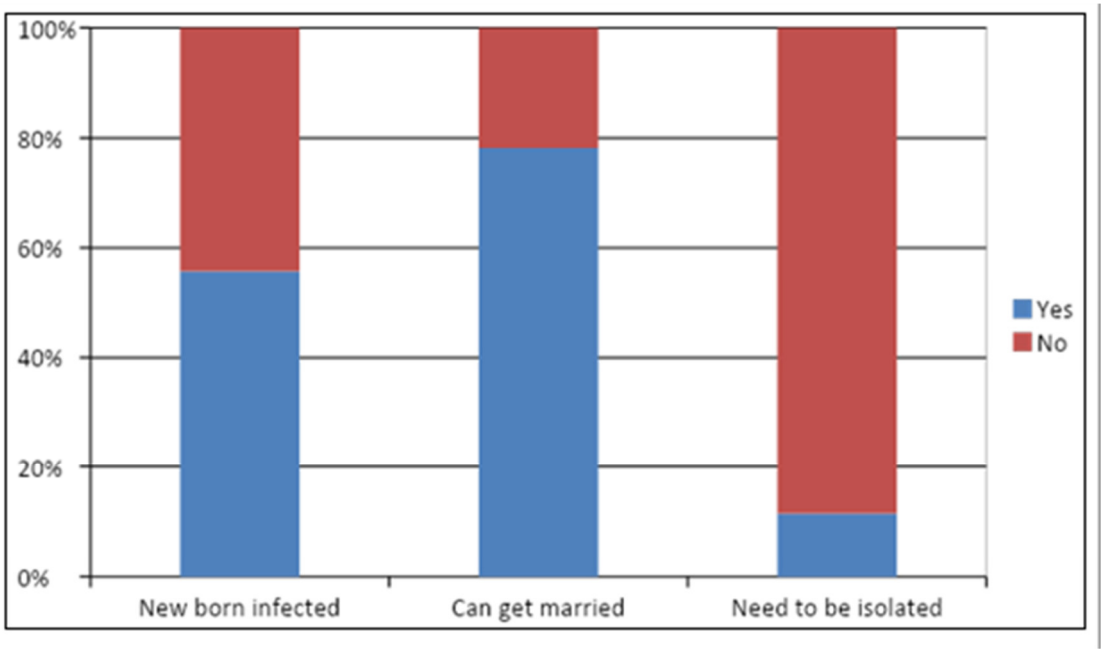

Figure 2
Knowledge of students about HIV/AIDS

It was good to find that most students aware about mode of transmission of HIV/AIDS, as most of them (76.5%&79%) know that blood transfusion and unprotected sexual intercourse is the main mode of transmission and only very few students that had misconception of mosquito bite, shaking hands and sharing food can transmit the disease (Table 4)

Table 4
Knowledge about modes of transmission

Knowledge		No	%
Blood transfusion/ its products	Yes	306	76.5
	No	94	23.5
	Total	**400**	**100.0**
Shaving	Yes	128	32
	No	272	68
	Total	**400**	**100.0**
Unprotected sexual intercourse	Yes	316	79
	No	84	21
	Total	**400**	**100.0**
Kissing	Yes	26	6.5

	No	374	93.5
	Total	**400**	**100.0**
Mosquito bite	Yes	9	2.25
	No	391	97.75
	Total	**400**	**100.0**
Shaking hands	Yes	6	1.5
	No	394	98.5
	Total	**400**	**100.0**
Sharing food/utensils	Yes	6	1.5
	No	394	98.5
	Total	**400**	**100.0**
Using public utensils	Yes	11	2.75
	No	389	97.25
	Total	**400**	**100.0**
Breast Feeding	Yes	134	33.5
	No	266	66.5
	Total	**400**	**100.0**

Most of the students opined that they should avoid multiple sex partners (86.5%) and avoid sharing needles (74.25%). Also more than half of them promote the essential sterilization of all surgical instruments (58.75%) as an effective method of halting HIV transmission (Table 5).

Table 5
Attitude of students regarding preventive measures:

Preventive measures		**No**	**%**
Avoid sharing needles	Yes	297	74.25
	No	103	25.75
	Total	**400**	**100.0**
Sterilization of all surgical instrument	Yes	235	58.75
	No	165	41.25
	Total	**400**	**100.0**
Avoid using HIV utensils	Yes	48	12
	No	352	88
	Total	**400**	**100.0**
Avoid eating with HIV patients	Yes	8	2
	No	392	98
	Total	**400**	**100.0**
Avoid unprotected sexual relationship	Yes	346	86.5
	No	54	13.5
	Total	**400**	**100.0**
Routine checkup can reduce the incident of infection	Yes	6	1.5
	No	394	98.5
	Total	**400**	**100.0**
Sharing food/utensils	Yes	62	15.5
	No	338	84.5
	Total	**400**	**100.0**

DISCUSSION

Overall awareness about HIV knowledge was good in the present study. About (100%) were conscious about HIV/AIDS disease and all of them except one had information about the causative agent (virus). Majority of them were aware about availability of diagnostics test and agreed that there is no cure for HIV. Some students (14.3%) were having misconception that there is a vaccine available for HIV infection. In agreement with the study conducted by Biradar et al., who found that awareness among students about HIV knowledge was good but few of them were not aware of treatment facilities and some believed about availability of HIV vaccine.[1] A similar study conducted in Uttarakhand among medical students by Ravi Shankar et al reported that all the students (100%) have heard the name of HIV/AIDS and they have correct knowledge of the causative agent and the majority (96%) correctly answered that the infection is incurable. Three-fourth of them had correct knowledge about the availability of tests to detect the infection and few students (43%) had knowledge about treatment options. About 88% of them had correct knowledge about unavailability vaccines to prevent infection.[14] Majority of students had gained information from doctors/health worker followed by other sources like media (TV, Internet, Radio, Newspaper) (21.8%), Friends & Family (3.5%) and others 4.5% (school curriculum, teachers etc). This study shows that doctors play a very important role in providing the students with information about the disease. Knowledge regarding modes of transmission among students were better in the study at hand compared to Ravi Shankar et al were students had correct information about different modes of transmissions viz. sexual route (98%), transmission through infected blood or its products (90%), mother to child transmission (78%), and sharing of needles/syringes (89%).[14] Similar results were observed from other studies conducted in India by Brijmohan et al., and Koksal et al., in Turkey.[1] Misconceptions about modes of spread was less in the present study compared to study by Ravi Shankar et al [14] where only very few students that had a misconception of a mosquito bite, shaking hands and sharing food can transmit the disease. Many other studies have observed similar misconceptions about modes of transmission.[15] It was observed that the majority of students had good knowledge and attitude about preventive measures where (86.5%) of them opined that they should avoid multiple sex partners and avoid sharing needles (74.25%). Also more than half of them promote the essential sterilization of all surgical instruments (58.75%) as an effective method of halting HIV transmission. These findings were comparable to study by Ravi Shankar et al [4] and Biradar et al.,[1]

CONCLUSION

The results of the present study are encouraging as most of the students had good awareness regarding HIV/AIDS disease. Role of doctors/health worker and media are very important to spread awareness among the general population. These measures will help to reduce the misconception and indifferent attitude towards the HIV infected patients.

AUTHORS CONTRIBUTION STATEMENT

Dr. Nouf wrote the research proposal with support of all authors and conducting review of literature, where Dr. Hanaa analyzed these data and necessary inputs were given towards the designing of the manuscript. All authors where collecting the research data, entering the research data and discussed the methodology and results and contributed to the final manuscript.

CONFLICT OF INTEREST

Conflict of interest declared none.

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