

AWARENESS OF AIDS AMONG MOSUL UNIVERSITY STUDENTS⁺

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Abstract

A cross-sectional study carried out to assess the current status of knowledge and awareness about AIDS among the college students. This study was carried out during the period from "First of December / 2005 – the end of April / 2006". Student were selected randomly (183 were males and 158 were females) from the last year in different colleges at Mosul university. Interview method was depended on a special questionnaire. The study identified that 18.2% of knowledge items regarding the disease was weak, Modes of transmission were not right and forms 63.64%, 33.33% of beliefs or conceptions were false, also positive attitudes toward AIDS patient was identified as 55.56%. The study concluded that no differences of awareness were identified in respect to sex. The study recommends to involve HIV/AIDS as a topic in the curriculum of the learning process, also carrying out corresponding laws and instructions regarding AIDS.

المستخلص :

" أجريت هذه الدراسة المقطعية لتقييم واقع المعرفة والوعي حول الإيدز بين طلبة الكليات. استغرقت الدراسة للفترة الأولى من ديسمبر/كانون الأول / ٢٠٠٥ - نهاية أبريل/نيسان / ٢٠٠٦ "، (٣٤١) طالب تم اختيارهم بشكل عشوائي (١٨٣ ذكور، ١٥٨ إناث) من طلبة السنة الأخيرة في الكليات المختلفة في جامعة الموصل. تم اعتماد طريقة المقابلة لإكمال استمارة استبيان خاصة. أثبتت الدراسة بأن ١٨,٢ % من فقرات المعرفة كانت ضعيفة، ٦٣,٦٤ % حول طرق الانتقال كانت خاطئة، ٣٣,٣٣ % من المعتقدات أو المفاهيم كانت خاطئة، كذلك إتضح بأن الاتجاهات ايجابية نحو مريض الإيدز وكانت بنسبة ٥٥,٥٦ %. استنتجت الدراسة بأنه لا توجد اختلافات بمستوى الوعي فيما يتعلق بالجنس وتوصي بتضمين الإيدز كموضوع في مناهج التعليم، كذلك تطبيق القوانين والتعليمات المتعلقة بالمرض.

Introduction

One of the major achievements of modern medicine has been the conquest of most of communicable diseases. These diseases were major causes of mortality and morbidity in earlier decades of twentieth century. With the development of effective vaccines and modern antibiotics, the threat of communicable diseases was largely contained [1].

In 1981, when AIDS (Acquired Immuno Deficiency Syndrome) was first recognized, it did not seem to be an unusual challenge. Five years later, the disease had assumed epidemic proportions, crossing frontiers and creating profound difficulties for public health authorities worldwide in attempting to halt the spread of the HIV (Human Immuno Deficiency Virus) [2,3].

HIV has imperiled the very fabric of human society as no disease in human history has before. By 2010, it is estimated that deaths from the pandemic will rival those of bubonic plague, which killed 93 million people. UNAIDS (United Nations Programmes on HIV/AIDS) predicts that an additional 45 million people will become infected with HIV in 126 low-and middle –income countries by 2010, unless the world succeeds in mounting a drastically expanded, global prevention effort[4].

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The alarming rate of its spread, the magnitude of its infection, inordinately long incubation period and resultant propensity of spread, lack of curative therapy and vaccine to prevent it mandates the acquisition of complete knowledge about HIV disease. This acquisition of knowledge is not only required for medical and paramedical personnel, but also to some extent, to majority of population, particularly high risk one [1].

Objectives of the study:

The aim of the present study was to assess current status of knowledge and awareness about AIDS and HIV among the college students.

Methodology:

A cross-sectional study carried out through the period from "First of December / 2005 to the end of April / 2006". Sample of the study was 341 students from the last year in different colleges of Mosul University (183 were males and 158 were females). Interview method was depended on a special questionnaire (checklist; Yes=1 , No=0) structured from review of many literatures about the disease and validating it by 5 experts from nursing, psychology, medicine and research fields. This was distributed to many parts: Knowledge (11 –questions), Mode of transmission (11 - questions), Beliefs or Conceptions(15 - questions) and Attitude (9 - questions). Each interview lasted an average of 20 minutes. Results were analyzed using descriptive statistic (Mean, Standard Deviation and Mean of Scores) and inferential statistic (t-test and ANOVA). In respect to mean of scores; accuracy of responses of the subjects are distributed in three categories: less than 0.5 of true responses considers weak, 0.5 – 75% of true responses considers acceptable , and more than 0.75 of true responses considers excellent.

Results:

Table — 1, *a* ; Mean of scores of the subjects (Mean and Standard Deviation) with accuracy of responses regarding "Knowledge" about the disease.

No.	Items	Mean(yes) ± Std. Deviation	Accuracy of response
1.	The cause of the disease is virus.	.9589 ± .1987	Excellent
2.	The disease is not curative.	.6862 ± .4647	Acceptable
3.	The disease can be diagnosed through laboratory investigation.	.7830 ± .4128	Excellent
4.	Body immunity reduces or deteriorates due to the disease	.9431 ± .2353	Excellent
5.	Signs and symptoms of the disease appear after more than one year of incidence.	.6510 ± .4773	Acceptable
6.	Opportunistic infections increase the seriousness of the disease.	.7126 ± .4532	Acceptable
7.	Disease can be diagnosed through special blood investigation.	.7794 ± .4365	Excellent
8.	Sexual Transmitted Infections increase the susceptibility of AIDS.	.8123 ± .3910	Excellent
9.	Disease affects all body systems.	.4839 ± .5004	<i>Weak</i>

10.	T.B. patient is more susceptible to AIDS.	.8035 ± .3979	Excellent
11.	Medical and health staff are more susceptible to AIDS.	.4839 ± .5004	<i>Weak</i>

It is obvious from the table that 54.55% of the subject's responses regarding Knowledge about AIDS are excellent (Items; 1, 3, 4, 7, 8 and 10), 27.27% are acceptable (Items; 2, 5 and 6), while 18.18% are weak (Items; 9 and 11).

Table — 1, *b* ; Mean of scores of the subjects (Mean and Standard Deviation) with accuracy of responses regarding "Mode of Transmission" of the disease.

No.	Items	Mean(yes) ± Std. Deviation	Accuracy of response
1.	Sexual contact	.9971 ± .0541	Excellent
2.	Hand shaking	.7918 ± .4066	<i>Weak</i>
3.	Breastfeeding	.3578 ± .4800	<i>Weak</i>
4.	Use of patient utensils	.6393 ± .4809	<i>Weak</i>
5.	Blood transfusion or it's product	.9355 ± .2460	Excellent
6.	Insect bite	.6199 ± .4864	<i>Weak</i>
7.	Prenatal or perinatal	.8534 ± .3542	Excellent
8.	Kissing	.6041 ± .4897	<i>Weak</i>
9.	Homosexuality	.7331 ± .4429	Acceptable
10	Contaminated food	.5601 ± .4971	<i>Weak</i>
11.	Causal daily contact	.5660 ± .4963	<i>Weak</i>

It is obvious from the table that 9.09% of the subject's responses regarding Mode of Transmission of AIDS are acceptable (Items- 9), 27.27% are excellent (Items; 1, 5 and 7), while 63.64% are weak (Items; 2, 3, 4, 6, 8, 10 and 11).

Table — 1, *c* ; Mean of scores of the subjects (Mean and Standard Deviation) with accuracy of responses regarding "Beliefs or Conceptions" of the disease.

No.	Items	Mean(yes) ± Std. Deviation	Accuracy of response
1.	Disease can be transmitted by contaminated nutrition	.6188 ± .4864	<i>Weak</i>
2.	Mosquito can transmit the disease	.4487 ± .4980	Acceptable
3.	Hand shaking can transmit the disease	.7537 ± .4315	<i>Weak</i>
4.	Kissing plays a role in transmitting of disease	.5718 ± .455	<i>Weak</i>
5.	Shared toothbrush can be a cause in transmitting the disease	.3138 ± .4647	<i>Weak</i>
6.	Shaving blades can be a cause in transmitting the disease	.7713 ± .4206	Excellent
7.	Dentist instruments can transmit the disease	.7097 ± .4545	Acceptable
8.	Syringes play an important role in transmitting of disease	.9062 ± .2920	Excellent
9.	Tattoo instruments play an important role in transmitting the disease	.7537 ± .4315	Excellent
10.	Patient's utensils can transmit the disease	.4370 ± .4967	Acceptable
11.	Sharing food with the patient can transmit the disease	.6452 ± .4791	<i>Weak</i>

12.	There is no treatment for the disease	.6393 ± .4809	Acceptable
13.	Children can be infected with the disease	.8328 ± .3736	Excellent
14.	AIDS patient can be identified from his/her appearance	.4927 ± .5006	Acceptance
15.	AIDS is threatening of the patient's life.	.9589 ± .1987	Excellent

It is obvious from the table that 33.33%% of the subject's responses regarding Beliefs or Conceptions about AIDS are excellent (Items; 6, 8, 9, 13 and 15), 33.33% are acceptable (Items; 2, 7, 10, 12, and 14), while 33.34% are weak (Items; 1, 3, 4, 5 and 11).

Table – 1, $\bar{d}$; Mean of scores of the subjects (Mean and Standard Deviation) with level of responses regarding "Attitudes" of the disease.

No.	Items	Mean(yes) ± Std. Deviation	10
1.	I am afraid from mingling with the patient	.2199 ± .4148	Excellent
2.	The patient may be segregated from community	.2375 ± .4262	Excellent
3.	I can be a friend to the patient	.4018 ± .4909	<i>Weak</i>
4.	I can share food with the patient	.3548 ± .4791	<i>Weak</i>
5.	I fear from conducting disease investigation	.1760 ± .3813	Excellent
6.	Disease can be caused social isolation	.7947 ± .4045	Excellent
7.	Disease can be caused stigma	.7977 ± .4023	Excellent
8.	AIDS patient can be ostracized from community	.7331 ± .4429	Acceptable
9.	No fear from causal contact with AIDS patient or hand shaking	.6188 ± .4864	Acceptable

It is obvious from the table that 55.56%% of the subject's responses regarding Attitudes towards AIDS are excellent (Items; 1, 2, 5, 6 and 7), 22.22% are acceptable (Items; 8 and 9), and also 22.22% are weak too: (Items; 8 and 9) and (Items; 3 and 4).

Table – 2; Analysis of Variance between Sex and Awareness categories "Knowledge, Mode of Transmission, Beliefs or Conceptions, Attitudes"

Items		Sum of Squares	df	Mean Squares	F. test	Sig.
Knowledge	Between Groups	0.115	1	0.115	0.042	0.837
	Within Groups	918.196	339	2.709		
Mode of Transmission	Between Groups	0.107	1	0.107	0.027	0.869
	Within Groups	1320.527	339	3.895		
Beliefs	Between Groups	12.974	1	12.974	2.213	0.138
	Within Groups	1987.685	339	5.863		
Attitudes	Between Groups	7.613	1	7.613	2.119	0.146
	Within Groups	1218.222	339	3.594		

The table demonstrates analysis of variance between Sex and Awareness categories "Knowledge, Mode of Transmission, Beliefs or Conceptions and Attitudes" about AIDS. The study shows that there are no significant relations at any level.

Discussion:

With no immediate hope of a vaccine, the need for public health policies and programs to protect individuals from contracting the illness through ignorance has focused attention on the role of education as a powerful medium for control. The World Health Organization has advocated the role of education in spreading knowledge about AIDS transmission. This has

evoked a general consensus that knowledge and awareness about AIDS need to be understood in their social context [5]. Also the extraordinarily high fatality and the modes of transmission and associated behavioral patterns raised questions about the adequacy of defenses against the disease, it continues to spread at an alarming rate [2,3].

Studies about AIDS and corresponding topics are difficult due to our social and religious obligations in addition to the confidentiality of the disease in the community.

Knowledge;

An overview on (Table-1a.) different pictures are viewing. Excellent awareness were presented against many knowledge items; to know the causative agent of AIDS, (Ali [1]; Baxi...et al [6]) upheld this result; how to diagnose AIDS. Anahita...et al [7] agreed with this result in which 10% of their study subjects believed that HIV-positive people can be recognized by their appearance; wormy effect of AIDS on the body immunity, CDC [8] referred that the most severe manifestation of AIDS is suppression or deficiency of the cellular immune system; AIDS can be diagnosed through special blood investigation, Baxi...et al [1] referred that 40% of students in their study knew about the availability of such blood test without knowing its name; presence of sexually transmitted infections increases susceptibility of AIDS infection, also caused Tuberculosis. Although such knowledge items transcribed acceptable awareness; AIDS is not curative disease, which agreed with other studies [2,8,6], while Agraeal...et al [9] contradicted that, they said that in their study a considerable proportion of respondents though that there is a cure for AIDS; effects of AIDS on the body does not appear at less than one year after infection, also the seriousness of AIDS increases due to the opportunistic infections occurs with. Two important items the subjects have less enough knowledge about; they believed that AIDS affect Immunity system of the body only, while CDC [8] referred that HIV infects other white blood cells, the brain, the bowel, the skin, and other body organs, also medical and paramedical staff are less susceptible to AIDS. At all WHO [10] referred than 70% of the participants in a KAP(Knowledge, Attitude and Practice) study on HIV/AIDS in Chechnya have a high general awareness about the disease, while Rashed...et al[13] referred, that approximately 41% of their study participants in Kuwait had little knowledge about AIDS, also Brook ^[11] and Green...et al [12] referred that their studies revealed a variable lack of knowledge about the disease among UK students.

Mode of Transmission;

Almost of the present subjects were highly aware of correct modes of transmission (Table-1b), they identify that sexual contact, blood transmission or it's products and prenatal or perinatal route as modes of transmission. Rashed...et al [13] referred that 26% of their study participants in Kuwait thought AIDS could be transmitted through blood donation, 97% of participants were aware that sex with prostitute or sex with multiple partners can transmit HIV infection, also Ali...et al [6] agreed with the previous statement. Knowledge regarding transmission modes was moderately good with 90.1% of the students know that HIV could be transmitted through semen, 76.8% through vaginal secretions and 94.3% through blood transfusion[14]. Knowledge regarding sources of transmission was generally good (e.g., blood 97.9% correct) yet there was considerable confusion regarding non-transmittable sources (e.g., insect bites 65.3% correct)[15]. Knowledge about HIV transmission was good with 62.7% in that, HIV is transmitted through sexual intercourse; 13.7% through blood transfusion; 91% through mother to child; while 13.7% did not know how HIV is transmitted^[16].

Acceptable level of awareness indicated that, homosexuality is one of the modes of transmission. The study subject's responses about other items of modes of transmission of AIDS presented are false (Table-1b.).

Most women in Chimoio (93.1%) could name at least one way to prevent HIV transmission and (24.9%) could name ≥ 3 ways to prevent HIV transmission^[17].

Beliefs or Conceptions;

It is obvious from (Table-1c.) that the accuracy of responses of the study subjects were varied. Excellent awareness is indicated for several beliefs as; shaving blades, sharing syringes, tattoo instruments, also high chance to infection among children, in addition to that, AIDS is life-threatening. Acceptable awareness have been identified among study subjects for

other beliefs as; transmission by mosquito, dentist instruments, patient's utensils, unavailability of treatment, and recognition of the patient through his/her appearance. The remainder beliefs among study subjects were false as; transmission by contaminated food, by hand shaking, by kissing, shared toothbrush, and sharing food with the patient.

However, there were some misconceptions regarding non-transmittable sources of that, HIV could be transmitted through hugging and kissing, sharing of lavatory seats (91.6%), (95.3%) through shaking hands and (77.1%) through masturbation, (63.5%) and (65.3%) thought that HIV could be transmitted through saliva and insect bites respectively ^[13,14,18], second hand clothes, communal use of crockery ^[19]. Also (85.87%) of males and (64.35%) of females among college students of Baroda university felt that it can be transmitted by common shaving blades [1]. While less than (20%) of women believe that it is possible to get HIV from shaking hands [18,29], 28% by causal contact ^[20], (9%) through kisses ^[16], by using public toilets [21], and by using swimming pools [22], (42.93%) of males and (42.13%) of female students felt that it can be transmitted by mosquito insect bite, (49.46%) of males and (41.67%) of females felt that it can be transmitted by common tooth brush ^[1].

Attitudes:

(Table-1d.) shows different levels of responses toward AIDS and its victims from the study subjects point of view. Many strong fashions of attitude (Frightening from mingling with the patient, Segregation of the patient from community, Fear from conducting disease investigation, Social isolation and Stigma) were faced AIDS patient. Also another two acceptable fashions of attitude the subjects had been hold are; dereliction of AIDS patient from community and no fear from direct contact with the patient, while the remainder fashions of attitude indicated weak level of responses among the study subjects.

Most of the Buddhist monks had sufficient knowledge and a positive attitude toward the HIV infected persons and AIDS patients [23,14,24]. While significant negative attitudes toward the disease, toward those affected, and a fear of the stigmatized group also emerged. There were fears expressed regarding eating and working with infected students although it was generally believed that infected students should be allowed to continue with their education ^[25,26], (78%) of participants were against AIDS patients living freely in the community ^[6,13,14,15], (20%) of students indicated that they would not shake hands with an HIV-positive person if they knew about his or her disease, (49%) of the students would be compassionate to an infected person and (15%) of them feel hatred towards him or her and 30% of students would feel apathetic towards the HIV positive people [7,9,11].

HIV/AIDS is highly associated with attitudes social responses. A person living with HIV and AIDS needs genuine compassion, good counseling and acceptance at all places and by everyone. In reality, those who are infected and affected, by HIV and AIDS, are being harmed due to negative social response, specifically stigma. Stigma is therefore not a natural phenomenon, something created by society. It prevents people from admitting own HIV status to friends and communities. In Uganda, The social response to HIV and AIDS is acceptance, not denial, by family, friends and politicians. The society is open about HIV and AIDS: talk about it, sing about it, play drama about it, lecture about it and teach about it. It is part of the discourse for the head of state and his cabinet. The religious leaders preach about it.. Those living with HIV and AIDS and their families should be embraced and supported to overcome fear, to suffer less and live longer. This requires a change of attitude at all levels. HIV and AIDS are often seen as shameful thing in Ethiopia for so many reasons. The infection is associated with adultery and prostitution. HIV is associated with religious beliefs of 'irregular sex', which is categorized as 'sinful behaviors'. Simply, HIV/AIDS is seen as the result of gross negligence and irresponsibility of the infected person. Education and public awareness is the post important policy option. People should know more about stigma and denial. The society should learn how to accept and embrace people living with HIV/ AIDS and give the maximum support and compassion [27].

Awareness and sex;

Both sexes in this study shows little differences in awareness which is practically insignificant (Table-3). Such studies contradict that, Agrawal..et al[9] found that boys had better knowledge than girls and their explanation for this finding was that boys feel free than girls to talk about matters relating to sex and HIV/AIDS[9], while females students demonstrated a slightly higher level of knowledge in comparison with male students [11,12].

Also females appear to have more favorable attitudes and compassionate towards persons with AIDS [7,17].

Conclusion:

- Good Knowledge was indicated about AIDS.
- Awareness about Modes of Transmission of AIDS was weak.
- Acceptable awareness about Beliefs or Conceptions was indicated.
- Positive attitudes were present.
- In respect to sex, no differences of awareness toward AIDS was recognized.

Recommendations:

- Using mass media to explain the aspects of the disease.
- Involvement of HIV/AIDS as a topic in the curriculum of secondary schools and all higher education.
- Enhance the moral, religious and spiritual obligations in the community.
- Application all specified laws and instructions regarding prevention, identification and capturing AIDS patients with no leniency regarding that.

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