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# Knowledge and Attitudes towards Acquired Immunodeficiency Syndrome among a Sample of Secondary School Teachers in Baghdad City

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## Abstract

**Background:** The number of people with HIV\ AIDS is increasing all over the world specially in the developing countries, this increment in the incidence rate of HIV\ AIDS disease, and the absence of curative treatment brought the need to assess the awareness of people about the disease.

**Aim of the study:** To assess the knowledge and attitude of secondary school teachers towards AIDS.

**Subjects & methods :** A cross- sectional study was done on a sample of secondary school teachers in Baghdad city, during the period from the 5<sup>th</sup> of February to 7<sup>th</sup> of May 2009. The data was collected by direct interview with the teachers by using a questionnaire designed suit to our community cultures.

**The results:** Revealed that all studied sample were aware about the presence of AIDS, and they have information about its modes of transmission, but there was a gap in their information about preventive measures of the disease, also they have negative attitude towards AIDS patients. The study showed that mass media is the best source for providing information about the disease.

**Recommendations:** To fill the gaps and correct the misconception of the teaching staff, the study recommended conducting workshops for training of the teachers, and set up a comprehensive health education program to enhance community awareness.

**Keyword s:** Teachers, knowledge and attitudes towards AIDS.

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## Introduction:

Information and education are vital in the fight against HIV\AIDS, all available evidence indicate that lack of knowledge, increase vulnerability and susceptibility of individuals to contracting the disease. An important starting point for designing proper preventive tools is to know how much people know about HIV/AIDS especially among educated persons, and those who may be in contact with infected individuals and patients with AIDS.<sup>[1]</sup>

Information is vital to enable people to have an accurate understanding of modes of transmission and prevention strategies of HIV\ AIDS, and in this regard teachers are expected to play a major role in the provision of information to promote awareness leading to behavioral changes among students.

The teachers knowledge and perception about the disease will influence how they are able to perform this role.<sup>[2]</sup>

The objective is to assess the knowledge, attitudes and sources of information about HIV\AIDS in a sample of secondary school teachers in Baghdad.

## Subjects & Methods:

A descriptive cross sectional study was carried out during the period from 5<sup>th</sup> of February to 7<sup>th</sup> of May 2009 in Baghdad city. The study was carried out in 22 schools in Baghdad.

Teachers of the chosen schools were from both sexes, regardless to their age, marital status, and years in teaching profession.

Convenient sampling technique was used for choosing the schools. The data was collected by direct interview with the teachers. The interview was carried out by the investigators themselves, using questionnaire which was designed and modified to suit the community. The questionnaire include information on basic knowledge about HIV\ AIDS, modes of transmission, prevention and control of, diagnosis and treatment of HIV \ AIDS , attitude and practice towards AIDS patient ,and best sources of information to increase people awareness about the disease .

The total number of the secondary schools in Baghdad city for the educational year 2008 -2009 are 933 schools, 436 schools are in Aresafa area and 497 school in Al - Karkh area.<sup>[3]</sup>

Before conducting the study administrative arrangement was done and the aim of the study was explained, the permission of the participants and school directors were sought, privacy was taken into consideration, and at the end of each interview the participant was thanked for their cooperation. Because of the sensitivity of the subject which had been chosen, all teachers were informed that participation in the study is voluntary. Response rate was (85%).

Analysis of data was carried out using available statistic package for social science SPSS (version 15). The data was presented as numbers and percentages.

**Results:**

The current study included 565 teachers, 414 (73.3%) were females and 151 (26.7%) were males.

**Table 1:** shows the age and sex distribution.

**Table 2:** shows the number and percentage distribution of the teachers according to their marital status and number of marriages.

**Table 1: The distribution of the studied group by age and sex.**

Table

Age (years)	Females		Males		Total	
	No	%	No	%	No	%
21-29	79	19.1	13	8.6	92	16.3
30-39	127	30.7	35	23.2	162	28.7
40-49	138	33.3	41	27.2	179	31.7
50-59	60	14.5	48	31.8	108	19.1
60 --	10	2.4	14	9.2	24	4.2
<b>Total</b>	414	100	151	100	565	100
<i>Mean±SD (Min-Max)</i>	39.50±9.77 (21-63)		44.94±10.35 (23-64)		40.95±10.21 (21-64)	

2:

**Marital status and number of marriage of studied sample**

Marital status	Number	%
<b>Male</b>		
<b>Married</b>	136	90.1
<b>Single</b>	13	8.6
<b>Widow</b>	1	0.7
<b>Divorced</b>	1	0.7
<b>Number of marriages</b>		
<b>Once</b>	128	94.1
<b>Twice</b>	7	5.1
<b>Three times</b>	1	0.7
<b>Mean age of marriage</b>	28.88 ±4.43	
<b>Female</b>		
<b>Married</b>	304	73.4
<b>Single</b>	97	23.4
<b>Widow</b>	11	2.7
<b>Divorced</b>	2	0.5
<b>Number of marriages</b>		
<b>Once</b>	302	99.3
<b>Twice</b>	2	0.7
<i>Mean age of marriage</i>	25.60 ± 5.01	

**Table 3:** shows the distribution of studied sample according to the level of education and years in teaching profession. Regarding the respondents knowledge about nature of HIV\AIDS disease, 79.6% of teachers correctly classified it as an infectious disease, and 88.7% correctly labeled the disease as a viral infection .(**Table 4**) Concerning the participants knowledge about the presence of AIDS disease in

Iraq more than half of studied sample (59.5% ) knew that AIDS present in Iraq, and 98.2 % of teachers reported that its increasing all over the world, further more 92.7% of the respondents knew correctly that there is no vaccine for HIV\ AIDS. Only 163 (28.8%) of the participants answered correctly that there is treatment for the disease, while majority of teachers (93.6%) agreed that healthy persons can develop AIDS. (**Table 5**)

**Table 3: Educational level and years in teaching profession of the studied sample**

Education	Number	%
Educational level Bachelor	563	99.6
Higher education	2	0.4
Years in teaching profession 1- 4	111	19.6
5- 9	75	13.3
10-14	90	15.9
15-19	73	12.
20-24	83	14.7
25-29	59	10.4
=>30	74	13.1

**Table 4: The distribution of studied sample by their sex and knowledge about nature of disease and its causative agent.**

Nature & causative agent	Female		Male		Total	
	No	%	No	%	No	%
Nature of disease Hereditary	-	-	1	0.7	1	0.2
Malignant	21	5.1	13	8.6	34	6.0
( correct answer) infectious	336	81.2	114	75.5	450	79.6
Others	45	10.9	18	11.9	63	11.2
Don't know	12	2.9	5	3.3	17	3.0
The causative agent Bacteria	4	1.0	2	1.3	6	1.1
(correct answer) Virus	363	87.7	138	91.4	501	88.7
Worms	-	-	-	-	-	-
Fungal	-	-	1	0.7	1	0.1
Don't know	47	11.4	10	6.6	57	10.1

**Table 5: Distribution of teachers according their responses about some basic knowledge**

Knowledge on AIDS	Correct answers		Incorrect answers		Don't know	
	No	%	No	%	No	%
Presence of AIDS in Iraq ( Its present )	336	59.5	113	20	116	20.5
AIDS patients increase in the world ( correct )	555	98.2	3	0.5	7	1.3
Presence of vaccine for AIDS (No vaccine)	524	92.7	12	2.1	29	5.2
Presence of treatment for AIDS ( there is treatment)	163	28.8	238	42.1	164	29.1
Healthy person can develop AIDS (can develop )	529	93.6	8	1.4	28	5.0

**Table 6:** shows the teachers' knowledge about the modes of transmission of HIV \ AIDS in which 95.9% knew correctly that disease transmitted by sexual contact, 94.7% correctly answered that AIDS transmitted by contaminated blood and plasma, 90.4% correctly believed that AIDS transmitted by contaminated surgical instruments, syringes, tattoo instrument . More than two third of the participants (77.2%) correctly answered that disease transmitted from mother to her fetus, 75.9% of participants correctly answered that AIDS can be transmitted by using shaving machine. 72.2% of the respondents knew correctly that AIDS transmitted to homosexual partner, 61.4% of studied sample correctly believed that AIDS could not be transmitted by shaking hands. 48.3% believed correctly that disease could not be transmitted by sneezing and coughing. For

transmission of disease by sharing food and drink with infected person 48% of the respondents answered correctly that disease could not be transmitted by this mode, 43.7% of the teachers knew correctly that AIDS could be transmitted by breast milk of infected mother to her baby. About transmission to a drug addict 27.6% of teachers thought correctly that it could be transmitted.

Poor results were recorded on knowledge about methods of prevention: About sterilization by vapor for 20 minutes only (8.8%) knew that virus could be killed, 15.6% of the teachers thought correctly that sterilization by dry heating for two hours killed the virus. Only 144 (25.5%) of the sample have correct knowledge about using males' condom as preventive method. **Table7.**

**Table 6: The distribution of teachers concerning the knowledge about AIDS modes of transmission**

Mode of AIDS transmission by;	Correct answers		Incorrect answers		Don't know	
	No	%	No	%	No	%
Shaking hands	347	61.4	62	11	156	27.6
Kissing	188	33.3	248	43.9	129	22.8
Sharing food & drink with infected person	271	48	170	30.1	124	21.9
Using shaving machine of infected person	429	75.9	74	13.1	62	11
Using teeth brush of infected person	76	13.5	433	76.6	56	9.9
Sexual contact	542	95.9	8	1.4	15	2.7
Using contaminated syringes, surgical or tattoo instrument,	511	90.4	13	2.4	41	7.3
Mosquito bite	168	29.7	243	43	154	27.3
Transmitted from mother to her fetus	436	77.2	36	6.4	93	16.4
Using toilet and swimming pool	183	32.2	233	41.2	150	26.5
Sneezing and coughing	273	48.3	161	28.5	131	23.2
Breast milk of infected mother to her baby	247	43.7	191	33.8	127	22.5
Transmitted to homosexual partner	408	72.2	45	8	112	19.8
Transmitted to drug addict by injection	156	27.6	204	36.1	205	36.3
Transmitted by contaminated blood and plasma	535	94.7	30	1.7	-	-

**Table 7: The distribution of teachers concerning knowledge about methods of prevention**

Methods of prevention	Correct answers		Incorrect answers		Don't know	
	No	%	No	%	No	%
HIV virus killed by sterilization by vapor for 20 min	50	8.8	199	35.3	316	55.9
HIV virus killed by dry heating for 2 hours	88	15.6	140	24.8	337	59.6
Using condom by male can protect from AIDS	144	25.5	181	32	240	42.5

Sources for HIV \ AIDS information reported by the teachers are presented in (Table 8). Television is the main source 86.2%, followed by radio 25.3%. Two third of the teachers 64.2% agreed that the information on AIDS should be included in teaching curriculum of schools, and 48.0% agreed that giving posters to PHC visitors represented the best source for information .

**Table 9:** Shows the distribution of respondents according to their attitudes towards persons with HIV/AIDS, female in general showed negative attitudes. Those with positive attitude range from

(57.5% - 100%), while those with negative attitude range from (46.0%-91.0% ).

All the participants 100% agreed about the importance of examination of blood and its product before giving it, and about examination of every foreigner enter the country, 99.8% of the respondents knew the importance of the antenatal examination of the pregnant mothers for AIDS. High percent of the respondents (96.5%) agreed about the importance of premarital exam for AIDS, 93.5% of the participants agreed about telling their family about the disease.

**Table 8: Sources of information on HIV \ AIDS among secondary school teachers**

Best source of information	Yes		No		Don't know	
	No	%	No	%	No	%
TV	487	86.2	77	13.6	1	0.2
Radio	134	25.3	422	74.7		
Teaching in school curriculum	363	64.2	202	35.8		
Giving posters to PHC visitors	271	48.0	293	51.9	1	0.2

\*Some teachers choose more than one response

**Table 9: The distribution of teachers concerning their attitude towards persons with HIV /AIDS.**

Attitude towards AIDS	Positive attitude		Negative attitude	
	No	%	No	%
If your friend develop AIDS you will leave him	205	36.3	360	63.7
AIDS person must be isolated from society	215	38.1	350	61.9
Person who has AIDS must be discharged from his job	325	57.5	240	42.5
If any student developed AIDS must be discharged from the school	275	48.7	290	51.3
If any member of family develops AIDS, will keep this as a secret	253	44.8	312	55.2
AIDS patient must tell his family about his disease	528	93.5	37	6.5
AIDS patient must tell his friends about his disease	350	61.9	215	38.1
AIDS patient can marry	51	9.0	514	91.0
Family of AIDS patient must take care for him	477	84.4	88	15.6
Premarital exam for AIDS is important	545	96.5	20	3.5
Antenatal exam of pregnant mother for AIDS is important	564	99.8	1	0.2
Blood & its products exam before giving to patient is so important	565	100		
AIDS exam of every foreigner enter the country is important	565	100		

### Discussion:

In the current study all the studied sample heard about AIDS, while in the study which was done in Islamic Republic of Iran 90% of the studied sample heard about AIDS, lower percent was recorded in the study of PHC attendants in Baghdad city in which only 85.2% of the participants heard about AIDS, while only 41% of Iraqi women who had been participated in the study of Multiple Indicator Cluster Survey (MICS) heard about AIDS, and these differences may be due to variation in the education level of the participants.<sup>[1,4,5]</sup>

Concerning the effect of educational status on the knowledge of the participants about the causative agent of AIDS in which 88.7% of the studied sample knew that AIDS is a viral disease which is near to the results of the study of Ogun where 83.3% of the respondents knew that AIDS is a viral disease, while 62% of studied sample in the study of PHC attendants answered correctly that AIDS is a viral disease, and this low percent of the correct answers because only 30.5% of the sample of PHC attendants had high education (University).<sup>[1,6]</sup>

In this study (59.5%) of the teachers agreed that AIDS present in Iraq, and 98.2% of them agreed that AIDS patients are increasing all over the world, which is near to the results of PHC attendants study, 50.5% agreed increasing all over the world.<sup>[6]</sup>

About one third( 28.8%) of the participants in this study knew that there is treatment for AIDS, and 93.6% agreed that healthy person can develop AIDS, while 38.4% of the sample of PHC attendants study knew that there is treatment, and 70.1 % agreed that healthy person can develop AIDS.

In comparison with the results of study of Ogun 16.3% believed that there is treatment for AIDS, and 85.8% believed AIDS patient can look healthy,

but only 19% of studied sample in the study of (MICS) agreed that healthy looking person can be infected with AIDS.<sup>[2,5,6]</sup>

Regarding the modes of transmission the current work shows figure are near to that of the PHC attendants study, while there was an apparent difference in the results of Iranian study and study of Ogun and this can be attributed to the effect of the societies on personal thoughts, believes and behavior. In this study only 11% of studied sample thought wrongly that AIDS can be transmitted by shaking hands, while higher frequency 58.9% was recorded by PHC attendants. In this study only 27.6% of the participants knew that AIDS can transmitted to drug addicts which was low in comparison to the results of the study of PHC attendants in which 53% of the participants knew that there is association between AIDS and drug abuse.<sup>[6]</sup>

About one third of studied sample thought wrongly that sharing food and drink with AIDS patients can transmit the disease, 52.3% of PHC attendants and small percent 16.1% of Ogunian study thought AIDS transmitted by sharing food and drink, while only 21% of studied sample in (MICS) study thought HIV cannot be transmitted by sharing food.<sup>[2,5,6]</sup>

For transmission to homo-sexual partners 72.2% of the sample answered it correctly, 84.0% of Ogunian participants agreed about that, but the highest percentage 85.7% of correct answers was recorded in the results of PHC attendants study.<sup>[2,6]</sup>

The results of this study showed that the knowledge of the participants about methods of prevention was low, only 8.8% of participants knew that HIV virus can be killed by sterilization by vapor for 20 minutes, 25.5% knew that usage of condom can protect from AIDS, and 92.7 % of the studied sample knew that there is no vaccine. In comparison

with the study on medical and non medical students (colleges of Science and Arts) in Al-Mustansiriya University 62% of non medical students believed there is no vaccine.<sup>[1,6]</sup>

This study shows a lot of misconceptions, and negative attitudes towards patients with AIDS, stigma consideration to AIDS patients can be identified from the answers of the participants. In this study only 9.0% of the participants agreed that AIDS patient can marry, in accordance with other study in Iraq lower percent was recorded in the study of PHC attendants in Baghdad in which 7.0% of the respondents agreed.<sup>[6]</sup>

For examination of every foreigner enter Iraq for AIDS all the studied sample believed that, in comparison with the study of medical and non medical students 90% of non medical students agreed.<sup>[1]</sup>

In this study high percentage 86.2% of the teachers agreed that TV is the best source for giving information, while 25.3 % of the respondents choose radio as best source . In comparison with the results of study in Islamic Republic of Iran in Yazd city 83.3% of the respondents agreed that TV and radio are best sources.<sup>[4]</sup>

To conclude up the current study shows adequate knowledge of respondents about modes of transmission of the disease but they have wrong information about methods of preventions . The study recommended collaboration between ministry of health, ministry of higher education, and ministry of education to establish workshops, in service training, and group discussions for teachers on HIV/AIDS and to enhance community awareness about HIV/AIDS through comprehensive health education program conducted by governmental and non governmental efforts.

## References:

- 1-Al – Dabbag Y Abdul Muniem, Farhan Faisal Shamil, Knowledge of Undergraduate Medical and Non – Medical students about HIV \ AIDS prevention and control, in: Iraqi Journal of community medicine, January 2008 vol 21, 1
- 2- Bankole O.M, Mabekoje O.O, Awareness and opinions about HIV \ AIDS among secondary school teachers in Ogun State, Nigeria, in Scientific Research and Essay, 2008, June, vol 3, 245 -249
- 3-Personal communication: Directorate of secondary school teaching, Ministry of Education Iraq.
- 4 -Mazloomly S .S and Baghianimoghdam H. M, Knowledge and attitude about HIV \AIDS of school teachers in Yazd , Islamic Republic of Iran, Eastern Mediterranean Health Journal, 2008,Volume 14 ( 2) , 292- 296
- 5-CentraL Organization for Statistics and Information Technology, Kurdish Region Statistics Office ,Ministry of Health, Unicef: HIV \AIDS and Orphan Children, in :Multiple Indicator Cluster Survey 2006, Volume 1:Final report
- 6-Hussein Aliaa, Knowledge and attitudes towards the Acquired Immunodeficiency Syndrome among a sample of primary health care Centers attendants in Baghdad city, 2006, dissertation submitted to the Scientific Council of Family Medicine.
- 7- Alghanim A Saad, An analysis of high school students knowledge and attitudes towards HIV \AIDS in Saudi Arabia, in : Middle East journal of Family Medicine, January 2008, Volume 7 (1) : 1

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