

HIV/AIDS Knowledge, Attitudes and Beliefs among Iraqi Women

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Abstract

Background: Since the beginning of the Iraq war in 2003 major societal changes have increased the possibility for a greater prevalence of HIV/AIDS in Iraq. With the potential for this increase, it is pertinent that stigma and knowledge levels HIV/AIDS are examined to help guide prevention efforts.

Materials and Methods: A sample of 209 women, whose ages ranged between 15-49 years, attending a private obstetrical and gynecology clinic in a middle class neighborhood of Baghdad were subjected to a questionnaire between November 1st, 2009 and April 30th, 2010. The questionnaire was designed to assess level of knowledge of HIV/AIDS and attitude towards persons whom have HIV/AIDS.

Results: Only about half of the respondents believed that condoms could help to lower risk of contracting HIV/AIDS (48%), and even fewer believed that abstinence could do so (50.91%). Higher education levels (ie: a college degree), as opposed to lower education levels, did not significantly impact correct knowledge of HIV/AIDS ($p > 0.05$). Most women indicated that they would not want a teacher with HIV/AIDS to continue teaching (69%) and would not buy fresh vegetables from a shopkeeper, who had HIV/AIDS (72%).

Conclusion: Women in Iraq appear to have limited knowledge about transmission of HIV and misperceptions about AIDS independent of their level of education. This, combined with an overall negative attitude towards those with HIV/AIDS, poses a serious threat to stigmatization and risk of transmission.

Recommendations: Open discourse about the misconceptions regarding HIV/AIDS and awareness programs targeted at expanding knowledge of HIV may be important steps toward combating this problem.

Key words: AIDS/HIV, Iraq, misconceptions, attitude, beliefs, women.

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Introduction

Acquired Immunodeficiency Syndrome (AIDS), one of the most important public health problems of our time, is in its third decade since first discovered and has become pandemic.

Moreover, with no definitive treatment or cure in sight, the disease continues to spread at an alarming rate, with prevention being the most effective management possibility.^(1,2)

HIV/AIDS Knowledge....

The HIV/AIDS (human immunodeficiency virus/acquired immunodeficiency syndrome) pandemic has resulted in a tremendous health care burden with an increasing need for primary health services, especially in less developed countries.

At the global level, public understanding of HIV/AIDS is improving, but many behavioral aspects of the epidemic remain incompletely documented and poorly understood. The stigma associated with the disease is preventing the widespread education and understanding, especially in conservative societies where sexual behavior is not publically discussed. ⁽³⁾ Such, seems to be the case with Iraq. Although it was estimated that fewer than 1000 cases of HIV/AIDS were present in Iraq in 2003, the country has undergone major societal changes since the 2003 war. ⁽⁴⁾ Violence, lack of security, and poor border control caused by the war, have respectively lead to a breakdown in the health care system and opened the door for illicit use of drugs, sexual promiscuity, leaving the possibility for an increase in the prevalence of HIV/AIDS cases in Iraq. ⁽⁴⁾ With the potential for an increased prevalence of HIV/AIDS it is pertinent that stigma and knowledge levels are assessed to help guide prevention efforts, and promote a correct understanding of the risk factors of HIV/AIDS. The objective of this study, done in Baghdad, Iraq, is to add to the understanding of the current situation of HIV/AIDS knowledge, belief, and attitude among middle class Iraqi women, and help provide better future educational and intervention strategies.

Methods and Materials

This study involved a sample of the community attending a gynecology clinic that allowed discussion of this sensitive topic.

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All women visiting Al-Harthia gynecology clinic in Baghdad between November 1st, 2009 and April 30th, 2010 were asked to participate in this study. The private clinic is situated in a middle class neighborhood in Baghdad and is part of a larger medical complex.

It serves as a catchment area for a population of about 500,000 and generally represents the middle class social strata from Western Baghdad, smaller cities in Baghdad and other provinces of Iraq. The sample collected was comprised of women attending the clinic for many reasons (medical, surgical, Gynecological, Obstetrical, Ultrasound, Laboratory tests, etc).

A clinic questionnaire filling form was ready to be distributed by the researcher and the clinic staff to participants in the clinic after taking their consent and informing them briefly of the aim of the study. Women were asked to fill out the form and to put a check mark on the answers they thought were most correct. This was all done before they entered into the consultation room (i.e: in the reception room).

A structured questionnaire was used from the standard forms provided by the WHO survey work in Iraq (IFHAS-2005/2006 survey). The questionnaire included questions on socio-demographic variables such as level of education. The questions were designed to assess the subjects level of knowledge of AIDS and attitude towards persons whom have HIV/AIDS; the possible responses to each question were Yes, No, and Don't Know. Since our questionnaire was designed to assess level of correct knowledge and assess levels of attitude among those who knew of HIV/AIDS, only women who answered positively to knowing what HIV/AIDS was were included in the study.

HIV/AIDS Knowledge....

Questions assessing knowledge were designed measure a general knowledge of the modes of transmission of HIV, and included such questions as: "Can people reduce their risk of contracting AIDS by using a condom every time they have sex?" and "can AIDS be transmitted through pregnancy?".

The questions regarding openness or attitude were designed to place a respondent in a hypothetical situation to measure their reported response to one who has AIDS. These included such questions as: "Would you buy fresh vegetables from a shopkeeper who has AIDS?" and if a family member became sick with AIDS would you be willing to care for them in your household?" For the purpose of statistical analysis, groups were created according to the number of correct responses to each category of questioning. There were 10 questions assessing knowledge. Those who responded correctly to 5 or more questions were considered to have "high knowledge" of HIV/AIDS, while those participants who responded with fewer than 5 correct responses were considered to have "low knowledge" of HIV/AIDS. Similarly, participants who responded with positive responses to 3 or more of the 4 questions assessing attitude were placed in the group "High Attitude," while lower levels of openness were indicated by 2 or fewer positive responses and grouped as "Low Attitude". Lastly, all those with a bachelor's degree or higher were placed into the group "high education," while those with a high school degree or lower were placed into the group of "low education". When looking at specific questions, those respondents who answered, "don't know" to any of the questions were removed from the analysis because a clear opinion could not be determined from their response.

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Five respondents were also removed excluded from the analysis due to missing information on the questionnaire.

Analysis of data was carried out using simple descriptive statistics, and was tested for significance using Pearson's chi-squared test and Fisher's exact test in the statistical package R (version: 2.12.2 GUI 1.36 Leopard build 64-bit).⁽⁵⁾ P-values of < 0.05 were considered to be significant.

Results

There were 204 female respondents who participated in the study, and their age range was 15-49 years. A high percentage (92.35%) knew that HIV/AIDS was not caused by witchcraft or other supernatural means. Other areas in which participants had a generally high understanding of HIV/AIDS included knowing that HIV/AIDS could be transmitted by receiving an injection from a needle that had been previously used on someone who had HIV/AIDS (85.41%), and that HIV/AIDS could be transmitted from a mother to a baby during pregnancy (85.88%). In addition a majority knew that AIDS is not transmittable through mosquito bites (60%). Many of the questions assessing knowledge, however, indicated a varied understanding of HIV/AIDS. Only about half of the participants indicated knowledge that forms of safe sex practices could aid in reducing the chance of contracting HIV/AIDS [condom use (50.91%), abstinence (48%)], and approximately the same percentage of participants responded correctly to knowing that breastfeeding could transmit HIV/AIDS (48.24%). Only 39.31% of the respondents correctly believed that HIV/AIDS could not be transmitted through sharing food, and slightly fewer (37.76%) correctly believed that HIV/AIDS could be transmitted during labor.

Table 1: Rate of elicited response to Knowledge & Attitude Questions

| | Response | | | |
|---|----------|-------|-----|-------|
| | Yes | | No | |
| | n | % | n | % |
| Knowledge Questions: | | | | |
| Can you get infected because of witchcraft? | 13 | 7.65 | 157 | 92.35 |
| Can people reduce their chance of contracting AIDS by using Condom? | 56 | 50.91 | 54 | 49.09 |
| Can people get AIDS from mosquito bites? | 56 | 40.00 | 84 | 60.00 |
| Can people get AIDS by sharing food with someone who has AIDS? | 68 | 39.31 | 105 | 60.69 |
| Can people reduce their chance of getting AIDS by not having sex at all? | 84 | 48.00 | 91 | 52.00 |
| Can people get the AIDS virus by getting injections with a needle that was used on someone else? | 158 | 85.41 | 27 | 14.59 |
| Can HIV/AIDS be transmitted from a mother to a baby during pregnancy? | 152 | 85.88 | 25 | 14.12 |
| Can HIV/AIDS be transmitted from a mother to a baby during labor? | 54 | 37.76 | 89 | 62.24 |
| Can HIV/AIDS be transmitted from a mother to a baby during lactation? | 82 | 48.24 | 88 | 51.76 |
| Do you know of a place where people can go to get a test to see if they have the AIDS virus? | 36 | 17.65 | 168 | 82.35 |
| Attitude questions: | | | | |
| If a female teacher has aids but is not sick, should she be allowed to teach? | 46 | 31.29 | 101 | 68.71 |
| Would you buy fresh vegetables from a shopkeeper or vender who has AIDS? | 49 | 28.00 | 126 | 72.00 |
| If your family member contracted AIDS would you want it to remain a secret? | 69 | 39.43 | 106 | 60.57 |
| If you family member became sick with AIDS would you be willing to care for them in your household? | 118 | 63.44 | 77 | 36.56 |

Only a very small percentage of respondents knew of a place where someone could be tested for HIV/AIDS (17.65%).

In general, responses to attitude questions indicated a lack of openness toward people with HIV/AIDS (Table 1). Most believed that a female teacher who has HIV/AIDS, but is not sick, should not be allowed to teach (68.71%), and most also indicated that they would not be willing to buy vegetables from a shopkeeper or vender who is known to have HIV/AIDS (72%).

When participants were asked questions about their family members, their openness towards the infected individual improved. The majority of respondents indicated that they would not want the fact that their family member had contracted HIV/AIDS to remain a secret (60.57%) and would be willing to care for a family member who became sick with AIDS (63.44%).

HIV/AIDS Knowledge....

Next we wanted to assess the extent to which knowledge and education impacted attitude levels. Table 2 shows that participants with lower levels of education were significantly more likely than those with higher education to be willing to care for their sick relative ($p = 0.011$). There was some association between level of knowledge about HIV/AIDS and willingness to care for a sick relative ($p = 0.06$), but level of knowledge about HIV and level of education, made no significant association with any other measure of openness. Finally, we wanted to assess whether knowledge about HIV was influenced by level of formal education or attitudes of respondents. As shown in Table3, participants with lower attitudes about HIV, compared to those with higher attitudes, were significantly more likely to correctly believe HIV/AIDS is not produced by witchcraft or other supernatural

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means ($p = 0.006$). Surprisingly, 23.1% of those with high levels of attitude about HIV believed HIV/AIDS could be transmitted by witchcraft ($p = 0.006$). This was also true for those with higher educations, compared to lower education ($p < 0.001$). Another significant finding was that a large majority (72%) of those women with high levels of attitude about HIV were more likely to wrongly believe that AIDS is not passed on from mother to child during lactation ($p = 0.048$). This does not seem to be driven by lower education, however, since there was no significant difference about this belief among women with higher education compared to women with lower education. ($p = 0.365$). Education level or attitude about HIV made no significant impact on any of the other knowledge variables (Table 3).

Table 2: Attitude by Knowledge and Level of Education

| Question: | AIDS Knowledge Level | | | | | Level of Education | | | | |
|---|----------------------|------|----|------|----------|--------------------|------|----|------|----------|
| | hi | | lo | | p-value* | hi | | lo | | p-value* |
| Attitude Variable | n | % | n | % | | n | % | n | % | |
| If a female teacher has AIDS but is not sick, should she be allowed to teach? | | | | | | | | | | |
| Yes | 20 | 36.4 | 26 | 28.3 | 0.4 | 21 | 28.0 | 25 | 34.7 | 0.484 |
| No | 35 | 63.6 | 66 | 71.7 | | 54 | 72.0 | 47 | 65.3 | |
| Would you buy fresh vegetables from a shopkeeper or vender who has AIDS? | | | | | | | | | | |
| Yes | 11 | 20.4 | 38 | 31.4 | 0.18 | 19 | 22.4 | 30 | 33.3 | 0.148 |
| No | 43 | 79.6 | 83 | 68.6 | | 66 | 77.6 | 60 | 66.7 | |
| If your family member contracted AIDS would you want it to remain a secret? | | | | | | | | | | |
| Yes | 27 | 49.1 | 42 | 35.0 | 0.1 | 32 | 36.4 | 37 | 42.5 | 0.497 |
| No | 28 | 50.9 | 78 | 65.0 | | 56 | 63.6 | 50 | 57.5 | |
| If your family member became sick with AIDS would you be willing to care for them in your household? | | | | | | | | | | |
| Yes | 43 | 74.1 | 75 | 58.6 | 0.06 | 47 | 53.4 | 71 | 72.4 | 0.011 |
| No | 15 | 25.9 | 53 | 41.4 | | 41 | 46.6 | 27 | 27.6 | |
| *P-values determined using Pearson's Chi-Square Contingency Test | | | | | | | | | | |

Table 3: Knowledge questions, by Attitude and Education Level

| Question | Attitude Level | | | | | Education Level | | | | |
|--|----------------|-------|-----|-------|----------|-----------------|-------|-----|-------|----------|
| | Hi | | Lo | | p-value* | Hi | | Lo | | p-value* |
| Knowledge Variable | N | % | N | % | | N | % | N | % | |
| Have you heard of the virus HIV or the illness called AIDS? | | | | | | | | | | |
| Yes | 28 | 100 | 176 | 100 | <0.001 | 101 | 100 | 103 | 100 | <0.001 |
| No | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| Can people get infected with the AIDS virus because of witchcraft or other supernatural means? | | | | | | | | | | |
| Yes | 6 | 23.0 | 7 | 4.86 | 0.006 | 0 | 0 | 13 | 14.94 | <0.001 |
| No | 20 | 76.9 | 137 | 95.13 | | 83 | 100 | 74 | 85.06 | |
| Can people reduce their chances of getting AIDS by using a condom every time they have sex? | | | | | | | | | | |
| Yes | 11 | 68.75 | 45 | 47.87 | 0.2 | 27 | 45.76 | 29 | 56.86 | 0.332 |
| No | 5 | 31.25 | 49 | 52.13 | | 32 | 54.24 | 22 | 43.14 | |
| Can people get AIDS from mosquito bites? | | | | | | | | | | |
| Yes | 4 | 20.0 | 52 | 43.33 | 0.08 | 28 | 40.58 | 28 | 39.4 | 0.973 |
| No | 16 | 80.0 | 68 | 56.67 | | 41 | 59.42 | 43 | 60.6 | |
| Can people reduce their chance of getting AIDS by not having sex at all? | | | | | | | | | | |
| Yes | 12 | 48.0 | 72 | 48.0 | 0.82 | 39 | 44.32 | 45 | 51.7 | 0.407 |
| No | 13 | 52.0 | 78 | 52.0 | | 49 | 55.68 | 42 | 48.3 | |
| Can people get the AIDS virus by sharing food with someone who has AIDS? | | | | | | | | | | |
| Yes | 12 | 48.0 | 56 | 37.84 | 0.45 | 28 | 32.18 | 40 | 46.51 | 0.076 |
| No | 13 | 52.0 | 92 | 62.16 | | 59 | 67.82 | 46 | 53.49 | |
| Can people get the AIDS virus by getting injections with a needle that was already used on someone else? | | | | | | | | | | |
| Yes | 21 | 80.77 | 137 | 86.16 | 0.55 | 78 | 83.87 | 80 | 86.96 | 0.699 |
| No | 5 | 19.23 | 22 | 13.89 | | 15 | 16.13 | 12 | 13.04 | |
| Can the AIDS virus be transmitted from a mother to a baby during pregnancy? | | | | | | | | | | |
| Yes | 23 | 82.14 | 129 | 86.57 | 0.56 | 79 | 87.78 | 73 | 83.9 | 0.601 |
| No | 5 | 17.86 | 20 | 13.42 | | 11 | 12.22 | 14 | 16.1 | |
| Can the AIDS virus be transmitted from a mother to a baby during lactation? | | | | | | | | | | |
| Yes | 7 | 28.0 | 75 | 51.72 | 0.048 | 39 | 44.32 | 43 | 52.44 | 0.365 |
| No | 18 | 72.0 | 70 | 48.28 | | 49 | 55.68 | 39 | 47.56 | |
| Can the AIDS virus be transmitted from a mother to a baby during labor? | | | | | | | | | | |
| Yes | 9 | 42.86 | 45 | 36.89 | 0.78 | 26 | 34.67 | 28 | 41.18 | 0.529 |
| No | 12 | 57.14 | 77 | 63.11 | | 49 | 65.33 | 40 | 58.82 | |
| Do you know of a place where people can go to get a test to see if they have the AIDS virus? | | | | | | | | | | |
| Yes | 7 | 25.0 | 29 | 16.48 | 0.29 | 23 | 22.77 | 13 | 12.62 | 0.086 |
| No | 21 | 75.0 | 147 | 83.52 | | 78 | 77.23 | 90 | 87.38 | |

*P-values determined using Pearson's Chi-Square contingency test, with Yates Continuity Correction, and Fisher's Exact Test

Discussion

In general, respondents from this sample of Iraqi women showed an alarming lack of knowledge about HIV/AIDS and had numerous misconceptions about the modes of its transmission. This is a finding consistent with comparable studies conducted in the region and even more specifically in Iraq.⁽⁶⁻¹⁰⁾ One surprising misconception and potential risk factor our study found that was not addressed in other studies, was a considerable lack of knowledge about the risk reduction potentials of safe sex practices. Only about half of the respondents in our study believed condom use could help prevent the transmission of HIV/AIDS (51.91%), and even fewer believed abstinence could reduce the chance of transmission (48%).

Other common misconceptions included believing sharing food with someone who has HIV/AIDS can transmit the virus (39.31%), believing mosquito bites can transmit HIV/AIDS (40%), and believing that HIV/AIDS cannot be transmitted through breastfeeding (51.76%). While the misconception rates found in our study are alarming, another recent study in Iraq conducted by Siziya et al, found many misconception rates that were even higher than ours revealed. In their entire study, nearly all participants believed that mosquito bites have the potential to transmit HIV (99.3%), and that HIV/AIDS cannot be transmitted through either breast milk (98.54%), or contaminated equipment (87.1%). Such findings collectively allude to an overall lack of knowledge in Iraq.⁽⁶⁾

Previous studies confirm a lack of knowledge of HIV/AIDS amongst even the formally educated.^(6,10,11) Ungan et al refers to this issue as a “knowledge deficit problem,” saying a lack of knowledge among the formally educated is disconcerting.⁽¹⁰⁾

One possibility for why knowledge is so low is an overall stigma associated with those infected with HIV or sick with AIDS. Like many other sexually transmitted diseases, AIDS is frequently seen as the damaging result of one's own licentious behavior.⁽¹²⁾ Such ideas have often led many to falsely believe that AIDS is only a matter of trepidation for the most morally perverse, and at times have led many to deem AIDS patients as deserving of the disease.⁽¹²⁾ In Asia, such impressions have often contributed to an attitude of denialism, as the widespread scale of the AIDS epidemic has not been accepted and those with HIV/AIDS have at times been denied health services.⁽¹³⁾ With stigmatization so prevalent, conversations about modes of transmission and avenues to prevention tend to remain absent from public conversation. UNAIDS theme groups have even reported that many local governments in China have at times been found to completely censor information about HIV/AIDS due to the fear that stigmatization may be reflected upon them.⁽¹⁴⁾

In agreement with our findings of majority of respondents not wanting to buy vegetables from an HIV/AIDS infected individual nor have a teacher infected with the disease, another recent study, conducted in Iraq by Hayyawawi et al, also found low attitude levels, reporting that more than half of their sample would try to avoid HIV-positive individuals in public or work situations.⁽⁹⁾ Like the studies in Asia have found, we believe these high rates of stigmatization may be hindering the public awareness of AIDS.

Secondly, because of this intimate relationship between misconceptions and attitude levels, it might also be true that with greater knowledge, people will stigmatize those who have HIV/AIDS less.

This is a topic that has often had many conflicting results, as scholars have found varying levels of correlation between these two variables.^(3,7,9,15-17) While our study found no significant correlation between knowledge of HIV/AIDS and positive behavior towards those infected with HIV/AIDS, Hayawwi et al's recent study found that high knowledge indeed correlates with high attitude levels.⁽⁹⁾ This discrepancy in the results might be related to the characteristic differences in the populations of being studied. Only about a quarter of the participants in our study answered more than half of the knowledge questions correctly (24%), and an even smaller number answered more than half of the attitude questions with a positive response (13%). However, our study is not a representative sample of the population of Iraq and these results do not have external validity.

Nevertheless, the consistency of our study and that of the previous study in terms of lack of knowledge in the population provide reasonable support to the need for HIV/AIDS education programs among the Iraqi population.

Conclusion and Recommendations

Women in Iraq appear to have limited knowledge about transmission of HIV and misperceptions about AIDS independent of their level of education. For this reason, we believe that an open discourse about the misconceptions regarding HIV/AIDS and awareness programs targeted at expanding knowledge of HIV may be important steps to take.

Such programs would not only act in expanding knowledge about HIV/AIDS, but also reduce stigmatization of AIDS patients, reduce the risk of transmission, and increase public understanding that HIV/AIDS is a problem that has the potential to affect all societal groups. Similar types of programs are beginning to be implemented regionally, as many public health professionals have started working with imams and other influential leaders to break the silence on the topic.⁽¹⁸⁾ Similar programs should be implemented in Iraq and the region.

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