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Review article

Systematic review of the knowledge and attitude about HIV and AIDS among Iranian population

Farideh Mohsenzadeh Ledari[1], Nahid Akbari[2], Moniroalsadat Hoseini Tabaghdehi[3,*]

[1] Department of Midwifery, Babol University of Medical Sciences, Babol, Iran
[2] Department Reproductive Health, School of Nursing, Iran University of Medical Sciences (IUMS), Tehran, Iran
[3] Department Reproductive Health, Shahroud University of Medical Sciences, Shahroud, Iran

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Abstract

Background: Inadequate knowledge, negative attitudes are major the hindrances to prevent the spread of human immunodeficiency virus (HIV). The objective of this study was to understand the knowledge and attitude about HIV and AIDS in the Iranian population.

Methods: We conducted a systematic review, searching online databases through December 2015 focusing on knowledge and attitudes about HIV and AIDS in Iran. Inclusion criteria were the cases which aimed to determine the knowledge and attitudes of people, placed in Iran, and conducted in the last fifteen years. After extraction, documentation, specifications of articles and conference were classified in the Endnote software and duplicated cases were removed using this application and new review of the categories.

Results: Twenty four articles met criteria. The knowledge and attitude toward HIV and AIDS were generally found to be different and varied; these differences can be related to the inconsistency of research tools and applied questionnaires, the content of the questions, number of questions, the difference in the ratings and rankings, as well as sample size, methodology and study type.

Conclusion: We conclude that our results will guide the development of population-focused HIV/AIDS knowledge and attitude in Iran, which is to be lacking among both the general public and healthcare.

Keywords: AIDS, Attitude, HIV, Iranian, Knowledge, Systematic review

Introduction

Human immunodeficiency virus (HIV) and acquired immune deficiency syndrome (AIDS) is not a disease, but a social, economic, political and cultural problem that the whole world is struggling with it. AIDS is a kind of disease that in terms of social involvement, its incidence and prevalence in active age, high rate of mortality and costs of intensive care (1-4), is considered as the most important problem in our health care systems; and the most important activities for the health institutions of different countries of the world are to control, prevent and provide a good care for them (4-6). According to UNIDS report in 2015 by only 36.7 million [34.0 million–39.8 million] people were living with HIV infection worldwide. In 2015, 2.1 million [1.8 million–2.4 million] new HIV infections worldwide are added (7).

*Corresponding author: Moniroalsadat Hoseini Tabaghdehi, Department of Reproductive Health, Shahroud University of Medical Sciences, Shahroud, Iran. Tel: +98-23- 32395054, Email: mhosseinit53@gmail.com

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For the new approaches for prevention, it is recommended to use antiretroviral drugs to help people at risk of HIV infection this practice, is called "pre-exposure prophylaxis," which can be an additional option to strengthen comprehensive approach to prevention. Other factors of this category include communication and behavior change, the continued use of female condoms, prevention programs for men and key populations, such as harm services reduction for people who use drugs. Anti-virus drugs are effective to prevent HIV transmission from pregnant women to their babies and reduced new infections among children by more than 50% as compared in 2009, all because of the knowledge and attitudes of people in the field of cultural transmission, treatment and prevention of AIDS (8-10). Annually, 1.6 (1.4 to 1.9) million people die due to AIDS compared in 2005, 2.3 (2.1 to 2.6) deaths from AIDS which had shown a decreasing trend (8).

The first cases of HIV in Iran were observed in 1976 in a 60-year- old child with hemophilia who had used the coagulation imported factor products infected with HIV (11). However, the prevalence of HIV infection and ADIS in Iran is less than the western countries and some countries in the region. But, according to estimates by UNAIDS in 2015, there are more than 73 000 [50 000 - 130 000] people infected with HIV in Iran as compared in 2007, where in more than 86,000 people infected with HIV, decreased (10, 12). According to different reports, most of the HIV people in Iran are drug users. Various studies reported to range from 50% to 80% (8, 13, 14). It seems that now 45 percent of people with HIV contracted the disease through injection and 36% are sexually affected; because of the young population of the country, sexual transmission method has bun replaced. In the absence of appropriate programs for the prevention of sexual transmission of HIV, the prevalence of AIDS in Iran will be effective by changing the pattern (15, 16).

AIDS epidemic in Iran passed through three main phases: the first phase, transmission through blood and contaminated blood products that this epidemic phase of HIV and AIDS was passed via preventive measures. The most common way of transmission is the injection drug users. In connection with this phase, Iran tried to implement programs using disposable syringes. It is believed that Iran has the highest number of injection drug users in Eastern Mediterranean region and North Africa, and the epidemic AIDS is concentrated among this group (14). The 45.1 percent AIDS prevalence due to transmission in drug users in Iran is the main way of transmission in our country (9, 17). Epidemic HIV in the country is going through its second phase to the third through sexual transmission (18).

Prevention is the most important way to deal with the HIV epidemic in the world. Taking a look at the infection trend and high-risk groups showed that the barriers to improving HIV prevention, lack of awareness about AIDS and its transmission ways are essential steps in prevention; however, appropriate knowledge about various aspects of the disease is not enough by itself and does not lead to the improved performance, it must improve attitude, along with knowledge (18-21).

In Iran, due to the young population of the country, the prevention of HIV epidemic requires interventions and programs based on age, sex, and so on to change the knowledge and attitudes over time. Thus, it is essential to perform regular review and assess the knowledge and attitudes of people in different age groups and those at high risk of HIV in the community.

Studies conducted in the country to assess the knowledge and attitudes towards AIDS in terms of methodology are numerous and varied. In these studies, knowledge and attitudes about prevention, transmission, treatment, etc. in different years were evaluated. The level of knowledge and attitudes over time can help policy makers and planners to clarify the current status of exploited population. The aim of this study was to understand the knowledge and attitude about HIV and AIDS in the Iranian population.

Materials and Methods

We conducted a systematic review, searching online databases through December 2015 focusing on knowledge, and attitudes about HIV and AIDS in Iran. To collect the required data, the first phase was performed by searching the SID (Scientific Information Database), Iran-Doc, IranMedex, Magi ran abstracts, thesis, magazines (both internal and external journals), government agencies (Ministry of Health, the press, the Welfare Organization, the Ministry of Culture, the prison authorities, research centers), references and sources of the obtained papers, and the non-governmental organizations using the key words of

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Table 1. Characteristics of published articles by Iranian researchers on online databases through December 2015.

Authors	Year	Sample number	The most important findings
Fadaei et al. (18)	2007	500	47.6 % of students had good knowledge and 39.6% had moderate awareness, 48 % of students had a poor attitude and 19% with a good attitude.
Etemat et al. (22)	2010	134	36.6% had moderate knowledge and 49.3% had negative attitude towards AIDS
Rohani rad & Kolahi (19)	2006	655	Public awareness of 45.5% of students was good (more than 75% of questions answered correctly), 45.2 % moderate (50-74% correct answers to questions) and 9.3% poor (the correct answer in less than 25 items).
Qorbani et al. (23)	2010	115	Total awareness of 46.5% and 49% poor or very poor attitudes of nurses.
Azimian (24)	2005	100	The highest level of awareness among students working on PhD level and lowest level among laboratory sciences.
Gashasbi et al. (25)	2006	137	Women's awareness about HIV transmission through shared syringe (90.9 %), mother to fetus (89.9 %), breastfeeding (57%) and the use of condom protection (63.9%) and about its treatment (51.8 %) were incorrect knowledge.
Karimi et al. (26)	2000	1850	23.2% of the students had very poor knowledge, 35 % poor knowledge, 34.4 % had moderate and 5.4% good knowledge and only 3% of students had perfect information.
Ranjbar (27)	2009	800	474 cases (59.2%) had good knowledge, 312 cases (39%) intermediate level, 14 cases (18 %) had poor knowledge, 371 cases (46.4 %) had favorable attitude and the rest had neutral and negative attitude ,respectively.
Panahande & Taramian (28)	2004	850	11.7% of the students had good knowledge, 77.6 % moderate and 10.7 % had poor knowledge.
Marashi et al. (29)	2000		The mean knowledge score was 20.28±0.68 and mean attitude score was 66.13±2.78 and the majority of students (88.5%) had high levels and (11.5%) moderate level. 88.75 % had a positive attitude, 11.2% had good awareness. 52.4% of subjects had a negative attitude towards HIV transmission.
Balali Meybodi & Mahmoudi Zarandi (30)	2008	1020	40.1% of the couples had high level of awareness, 37.4% good, 20% moderate and 2.6% poor knowledge, and 58.4% had excellent attitude, 33.5% good, 7.1% moderate and 1.1% had poor attitude.
Sanei Moqadam et al. (31)	2010	951	50.2% of students had good, 44% moderate and 5.8% poor knowledge. 17.1% with positive attitude, 56.9% neutral attitude and 25.9 % negative attitude.
Simbar et al. (32)	2007	58	96.6 %with good knowledge, 93.1 % had a positive attitude
Ghorbani, et al. (23)	2006	200	13.5% of nurses had high knowledge level, 34.5 % good, 43% average, 9% of poor level

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Table 1. Continue from the previous page

Authors	Year	Sample number	The most important findings
Taj Shrififar & Roshan Del (33)	2005	441	Mean score of knowledge was 99.42±33.10 of 100 points, the highest score was 68 and the lowest score zero. 27.7% of soldiers had poor knowledge, 65.8 % moderate, 6.6 good knowledge. The mean attitude score of soldiers 78.49±72.10 of 100. 26.1 % of soldiers gained scores higher than 80.
Ramazan Khani et al. (34)	2010	590	50.3% of the study population had low level and 36.9% of average level, and 12.7 % high knowledge level. Attitude ranking was low in 13.7%, 62.2 % moderate and 23.7 % were high.
Lotfipour Rafsanjan et al. (35)	2011	384	Mean scores of knowledge was 50.4±4, Mean scores of attitude was 18.4±2.26. 89.6% of samples had good knowledge, 80.2 % had relatively positive attitude.
Sadeghi & Hakimi (36)	2008	750	82.1% knowledge and 57.4 % had a negative attitude. (76.5 % high, 21.9% good, 1.6% moderate). The positive attitude 1%, 89% negative and 10% neutral attitude.
Pakfetrat & Shahabi Nezhad (37)	2004	300	The mean knowledge level was 14.57±4.6, the lowest level of knowledge in the lowest attitude was in the inhabitants of rural areas
Ashrafinia et al. (38)	2013	260	Most women had moderate knowledge level (55.2%), the positive attitude of transmission and prevention ways of HIV (95.8%) and moderate level of fear of AIDS. (57.5%)

HIV, AIDS, knowledge, attitude for collecting published documentation.

In the next step, all the data were collected and extracted by searching databases of ISI web of knowledge, Scopus, PubMed and Science Direct and Iran papers and abstracts related to the research subject using the keywords of HIV or AIDS, as well as executing AND with knowledge and attitude keywords. In addition to the obtained documents, relevant documents from international organizations (AIDS UN and WHO) were obtained. Inclusion criteria were the cases which aimed to determine the knowledge and attitudes of people, placed in Iran, and conducted in the last fifteen years. After extraction, documentation, specifications of articles and conference were classified in the Endnote software and duplicated cases were removed using this application and new review of the categories.

Results

The results of studies about awareness were analyzed by assessing the average score of knowledge, level of awareness, percentage and rankings. The reported awareness level fluctuated and most studies have noted low levels of awareness (Table 1). The results of studies on women's attitudes toward AIDS in the reviewed literature showed that reported attitudes as an average point of attitude, and the attitude of the ranking were reported. In most studies, attitude was ranked by positive and negative points. The assessment tool to evaluate awareness was a researcher –made questionnaire with the different questions number.

Discussion and Conclusion

In this study, 24 researches on the knowledge and attitude toward AIDS were evaluated. The studied articles, the different and diverse knowledge levels about AIDS have been reported. Sediqi examined the dental students' knowledge and attitudes which were about 1.82 % and 57.4 %, respectively (36). Ramezani Tehrani and Malek-Afzali in 2003 conducted a study on 754 cases 15-25 years old, which showed that the level of awareness about AIDS was lower than the average, especially in people with high-risk sexual behavior (39).

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Also Ayranci (2005) in a epidemiology study in Turkey evaluated that the knowledge level of participants was relatively good which had a significant relationship with their education level, and they also found that studied people's attitudes toward AIDS patients and community support was fairly positive (40).

The results of these studies and other studies indicated the necessity to improve the knowledge and skills necessary to empower AIDS related matters. In these studies, the attitudes toward AIDS were varied. As in Kolahi's study in 2004, the students' attitude towards HIV was positive (35).

In the obtained articles, the knowledge and attitude toward AIDS were different and varied; these differences can be related to the inconsistency of research tools and applied questionnaires, the content of the questions, number of questions, the difference in the ratings and rankings, as well as sample size, methodology and study type. So, it is important to check the level of knowledge and attitude toward AIDS using a comprehensive questionnaire that has been developed according to the cultural and social conditions of the society. Today, awareness about AIDS has a good growth, but the prevalence of disease and its nature-dependent behavior suggests that only effective training can lead to a change in attitude and behavior. Besides, the training should provide skills to avoid risky behaviors. If the individual's knowledge fails to provide the preventive skills of risky behaviors, it cannot play any role in reducing the prevalence of this disease.

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Conflict of interest

None declared.

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