

Understanding the influence of culture and religion on youth's attitudes and knowledge of

HIV/AIDS in the Middle East

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## **Abstract**

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The main focus of this paper is to understand the effect of culture and religion on educating youth, which could increase the knowledge and change their attitudes and beliefs about HIV & other lethal Sexually Transmitted Diseases (STDs), in the Middle Eastern countries. Although, the Middle East has the lowest infection rates in the world and is likely then, the lowest affected region the HIV/AIDS burden is fast increasing in the Middle East. This research project identifies how unlike other areas of world, the number of people newly infected by HIV and AIDS related death has increased rapidly since 2000. Therefore, this paper argues that it is significant for Middle Eastern countries to halt the prevalence of the HIV/AIDS and force the epidemic into decline thorough educating individuals about the epidemic. The literature suggests that culture and religion have a remarkable influence on communicating and implementing STI educational programs about sexually transmitted diseases. Still there are some effective educational methods, which could be adopted by Islamic culture and implemented in the schools for increasing the youth's knowledge about HIV/AIDS and its prevention.

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## CHAPTER ONE

### **Introduction**

In the past decade there has been a serious matter facing the world that requires educating people about prevention of HIV and other sexually transmitted diseases. Therefore, there are many educational intervention programs, especially for HIV prevention, which have been widely implemented all around the world. These include peer education, through media education, curriculum-based sex and HIV education, comprehensive sex education, behavioural interventions and communication interventions. However, in some countries, such as the Middle Eastern countries, culture and religion may be a barrier to the implementation of those interventions. Thus, the aim of this study is to understand the effect of culture and religion on the attitude and knowledge of youth about HIV & other lethal sexually transmitted diseases in the Middle Eastern countries. This paper will analyze the effect of culture and religion in the Middle East in educating youth for preventing infection with HIV & other sexually transmitted diseases. Hence, the better we understand this relationship the better we may help individuals and communities within Islamic culture to adopt safe sexual practices and have a healthier life.

### **Rational and Background**

Davison (1960) defines the Middle East as Near East, which is located where Africa, Asia and Europe connect. Some equate the Middle East to the large portion of the Islamic World, as Islam is the dominant religion and 20% of the world's Muslims live there. The Middle Eastern countries are defined as: Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, United Arab Emirates, Yemen, Gaza and the West Bank, Iran, Turkey and Israel (Omran & Roudi, 1993).

HIV/AIDS is one of the most serious health and development challenges and considered a major global public health crisis. Michel Sidibe, executive director of The Joint United Nations Program on HIV and AIDS (UNAIDS) said “The HIV and AIDS epidemic brought the world to its knees before bringing people to their feet” (UNAIDS, 2015). According to the World Health Organization (WHO), at the end of 2014 there were about 36.9 million people in the world living with HIV/AIDS. Unfortunately, there is no cure for HIV and the only protection is prevention. Therefore, the only way that people with HIV can enjoy productive lives is using antiretroviral drugs that control the virus and help prevent transmission. (World Health Organization, 2015)

However, the world has halted the prevalence of HIV/AIDS and even forced the epidemic into decline. The goal of The Joint United Nations Program on HIV and AIDS (UNAIDS) is to end the AIDS epidemic by 2030. Therefore, many actions have been taken by UNAIDS in order to achieve this goal, for example, the access to antiretroviral therapy has been increased by 84% since 2010, and in June 2015, 15.8 million people infected with HIV were receiving antiretroviral therapy globally. Also by implementing HIV educational programs, in 2015 new HIV infection globally has been decreased by 35% and AIDS related deaths have been reduced by 42% since 2000. (UNAIDS, 2015)

### **Regional snapshots of HIV/AIDS in 2015**

In the Sub-Saharan Africa, approximately 24.7 million people live with HIV, which is the most affected region. (UNAIDS, 2014) But since 2000, the number of new HIV infection cases has dropped by 41% in 2014. Statistics demonstrate that newly infected HIV cases were 2.3 million in 2000 and this figure has been decreased to 1.4 million in 2014. Also, in 2014 there were approximately 34% less HIV/AIDS related deaths since 2000. (UNAIDS, 2015)

In the Caribbean, an estimated 250,000 people live with HIV. (UNAIDS, 2014) The number of new HIV infections and AIDS related deaths decreased by 50% from 2000 to 2014. In 2000, there were 27,000 people newly infected by HIV and in 2014 this number has declined to 13,000. (UNAIDS, 2015)

In the Asia and the Pacific, an estimated 4.8 million people live with HIV, which is the second highest affected region in the world (UNAIDS, 2014). But since 2000, the number of new HIV infections has fallen by 31% in 2014. Statistics shows that HIV newly infected individuals were 500,000 in 2000 and this figure has decreased to 340,000 in 2014. Yet, in 2014 there were approximately 11% more HIV/AIDS related deaths, since 2000 (UNAIDS, 2015).

In the Latin America, an estimated 1.6 million people live with HIV. (UNAIDS, 2014) The number of new HIV infections decreased by 17% between 2000 to 2014. In 2000 there were 100,000 people newly infected by HIV and in 2014 this number has declined to 87,000. In addition, in 2014 there were approximately 31% fewer HIV/AIDS related deaths since 2000 (UNAIDS, 2015).

In the Western and Central Europe and North America, about 2.3 million people live with HIV/AIDS (UNAIDS, 2014). The number of new HIV infections remained fairly stable since 2000. In 2000, there were 87,000 people newly infected by HIV and in 2014 this number has declined to 85,000. Also, from 2000 to 2014, AIDS related deaths fell by 12% (UNAIDS, 2015).

In the Middle East and North Africa (MENA), about 230,000 people live with HIV/AIDS, which is the lowest infected region in the world (UNAIDS, 2014). However, unlike other regions in the world, the number of new HIV infections and AIDS related deaths increased rapidly. The estimated number of people infecting by HIV rose by 26% from 2000 to 2014. In

2000, there were 18,000 people newly infected by HIV and in 2014 this number has increased to 22,000. In addition, the estimated number of AIDS related deaths has more than trebled, from 2000 to 2014. In 2000, there were only 3,600 AIDS related death and in 2014 this number has increased to 12,000 (UNAIDS, 2015).

As can be seen, MENA is the only region in the world that rates of new HIV infections and AIDS related deaths are rising rapidly. Although, MENA is the lowest affected region the HIV burden is increasing fast in the MENA. Therefore, the main focus of this paper is to address this issue in the Middle East region. In order to understand the effect of culture and religion on educational intervention methods that would help to prevent transmission of HIV and decrease the number of new HIV infections.

### **Research Goal**

The goal is to understand the effect of culture and religion on educating youth about HIV/AIDS in the Middle Eastern countries.

### **Research Objectives**

- To determine the knowledge and attitude of people living in Middle Eastern countries about HIV & other lethal sexually transmitted diseases.
- To assess how Islamic tenets could affect the prevalence of HIV, both positively and negatively.
- To ascertain how culture affects people's perceptions and beliefs about sexually transmitted diseases in the Middle East.

## CHAPTER TWO

### Introduction

This chapter provides an overview and a basic review of HIV, which is one of the most serious health and development challenges in the world. HIV stands for human immunodeficiency virus and it causes the disease AIDS if left untreated. Furthermore, the purpose of this chapter is to provide fundamental information about the disease's history, clinical information, modes of HIV transmission, symptoms, HIV testing and prevention.

### History

In the summer of 1981, a brief report about HIV began. A rare infection found in five homosexual men who lived in Los Angeles, was published in the morbidity and mortality weekly report by US Centers for Disease Control and Prevention (CDC). However there is significant evidence that HIV first occurred much earlier than 1980 in Cameroon (Klimas, Koneru & Fletcher. 2008). Furthermore, the study discussed risk factors and systemic causes of this disease. In 1983 Infectious Agent named the virus as human immunodeficiency virus (HIV). Two years later in 1985, in order to screen donated blood, which is one of the most common ways to transmit HIV, Serologic Assays were developed to test for HIV infection (Bradley, 2006). Since then, there is ongoing research being conducted on different aspects of HIV, including identifying, treating and preventing HIV as a serious public health issue worldwide. Since the first cases were reported in 1981, approximately 39 million people have died of HIV. In 2013, the World Health Organization (WHO) announced that HIV has infected about 35 million people in the world and 24.7 million of those infected people are living in sub-Saharan Africa. In 1999, Temesgen founded that 90% of people infected with HIV live in developing countries, and out of the total number two-thirds live in sub-Saharan Africa. That makes that

region the most affected region in the world

### **Clinical**

Human immunodeficiency virus damages the immune system in the human body by destroying white blood cells called CD4 positive. This cell is responsible for fighting off a variety of infections that attack the body. Furthermore, the human body infected with HIV is vulnerable to other disease and infection due to missing CD4+, which is vital to fight infection. There are two types of HIV introduced: HIV-1, closely related to simian immunodeficiency virus (SIV) from chimpanzees (SIVcpz), and HIV-2, closely related to SIV from sooty mangabeys (SIVsm). The main difference is HIV-1 is spread globally and HIV-2 is mainly restricted to West Africa. (Lemey et al., 2003).

### **HIV causes AIDS**

The person infected with HIV, who has one or more opportunistic infections such as tuberculosis, is diagnosed with Acquired Immune Deficiency Syndrome (AIDS). When HIV infects a person, he/she will have very low number of white blood cells CD4+ (counts below 200 white blood cells per cubic millimeter) and HIV will then lead to AIDS. (Royce, Sena, Cates & Cohen, 1997). Generally speaking, AIDS is the final stage of HIV. A document from a prospective epidemiological study demonstrates that the development of AIDS needs an absolute requirement of HIV infection; it is the strongest evidence that HIV causes AIDS. In every population in which HIV is introduced, it has demonstrated that the feature characteristics of progressive AIDS appears. In addition, other data demonstrate that HIV and AIDS are clustered in the same population group at the same time and in the same geographical locations. Furthermore, numerous studies have indicated that HIV and AIDS have had a very close relationship with each other. It has been proved that in the countries in which no HIV infected

person can be found, this syndrome does not exist; nonetheless, in countries with many HIV infected people, many of these syndromes are found (Blattner, Gallo & Temin, 1988).

### **Transmission**

HIV has been known as a sexually transmitted disease; this means that the primary method of transmitting it is via sexual intercourse, which is the source of 75 to 80 percent of the HIV infections (Royce, Sena, Cates & Cohen, 1997).

During sexual intercourse, the virus can cross the barriers of the penis, vagina and rectum by first coming into contact with immune cells that carry the virus. Due to the physical characteristics of women, they are more likely to be infected with HIV during heterosexual intercourse in comparison with men; nevertheless, the risk could be highly decreased by correct use of condoms. The other way of transmitting the HIV virus is through anal sex, which carries a higher risk of being infected by the virus than vaginal sex. Additionally, another factor that leads to increased risk is having sexual intercourse with multiple sex partners. Apart from sexual intercourse, there are other ways that HIV could be transmitted: one of them is by infected blood through sharing needles. However, needle exchange programs have contributed to the reduction of risk of infection (Klimas, Koneru & Fletcher, 2008).

Since 1985, in many countries such as Canada and the US, the blood supply has been screened through different tools to remove the risk of being infected by blood products. It is significant to know that another way of transmitting the HIV virus is through infected mothers through breast-feeding infants; infants can also be infected during pregnancy or delivery; however, infants are mostly infected through breast-feeding. In 2003, a study showed that 315,000 infants out of 700,000, who were infected with HIV, were infected during their breast-feeding time. Healthcare workers are the ones who are minimally exposed to by the virus owing

to the fact that needle sticks or splash of transmitting blood contacts them. Such a risk is called occupational risk (Klimas, Koneru & Fletcher, 2008).

### **Symptoms, Testing and diagnoses**

In principle, HIV symptoms are categorized into three stages: the first stage is called Acute Retroviral Syndrome (ARS); it occurs when the immune system of the body naturally responds to the virus of HIV and starts to attack HIV; such an attack usually happens 2 to 6 weeks after the infection. In this stage, symptoms can include: diarrhea, headache, fever and sore throat. The second stage, which is called the latent period, is the long period with no symptoms due to losses of the immune system to HIV. In this period, HIV starts damaging CD4+ cells slowly until it destroys the body's immune system. The last stage, which is the advanced stage of HIV, is what is called AIDS (Acquired Immune Deficiency Syndrome); this is the stage on which the number of CD4+ cells is less than 200 cells/mm<sup>3</sup>, compared with an uninfected body, which is between 450 and 1,400 cells per microliter. Symptoms at this stage are: rapid weight loss, extreme tiredness, sores of the mouth and memory loss (Robinson, 2015).

### **Prevention**

Prevention of HIV could be achieved many ways: having less risky sexual intercourse, constant test taking of partners, limiting the number of sexual partners, using male and female condoms, and providing an affordable prevention option. What's more, the awareness of the partner's sexually transmitted disease is important as it can increase the risk of being infected by HIV. As mentioned previously, there is risk of babies being infected by this virus is from mother to infant so the best way of preventing the virus could be reduced by elective delivery by caesarean section. Also because HIV can be transmitted by breastfeeding as well, replacement feeding is highly recommended for prevention (Simon, Ho & Abdool Karim, 2006).

If HIV is contracted Antiretroviral Therapy (ART) can repress the growth of the HIV virus. (Gilks, Crowley, Ekpini, Gove, Perriens, Souteyrand & De Cock, 2006). In general, knowledge of HIV is important not only for prevention but also care; nonetheless, the fear of status, including stigma and discrimination, may discourage many people from seeking consults and testing (Simon et al., 2006).

## CHAPTER THREE

### **Introduction**

This chapter reviews several studies about different aspects of HIV/AIDS in the Middle East. The main objective of this chapter is to provide an overview of youth's attitudes and level of knowledge in the Middle Eastern countries and to explore the effect of Islamic culture and religion on people attitudes and beliefs, by reviewing the HIV literature on the Middle East. Therefore, this chapter has three main sections: Firstly, it begins with providing an overview of a general perspective of Middle Eastern people's attitudes and beliefs about HIV/AIDS. Secondly, to study the impact of Islamic culture and practice on the prevention of HIV by reviewing several Islamic codes. Finally, providing various case studies about people's attitudes and knowledge, especially youth toward HIV/AIDS in the Middle Eastern countries.

### **HIV in the Middle East**

Obermeyer (2006) studied the prevalence of HIV in the Middle East. In this study, HIV has been known as a disease that came to Middle East from western countries, in which sexual morals were decadent. Due to the Islamic religious majority of the population in the region, the best way to prevent the disease is thorough obedience to Islam. The main purpose of this study is to review the relationship between the prevalence of HIV and cultural factors, especially those related to the practice of Islam. Although the spread of HIV is low in the Middle East, there is no room for complacency and self-satisfaction. In some other cases, as a reaction to this statement, the disease is concealed as "behind the veil" (Obermeyer, 2006).

Kelley & Eberstadt (2005) studied the unique perspective of Muslim people and the effect of culture and religion on perceptions, attitudes and beliefs toward HIV. As noted

previously it is concealed “behind the veil”. Muslims are engaged in exactly the same risky behaviours that would increase the spread of HIV as others in the world. However, the main concern is the attitude of denial in the Islamic world, which is deeply rooted in the culture and religion. This attitude of denial will make it more difficult for the international community to provide support and treatment, and thus accelerating the spread of the epidemic. There are three main arguments in this review: firstly, the fact that no one can deny the Muslim world is home to many of dangerous behaviours that would support the spread of the HIV and other sexually transmitted diseases, such as prostitution, premarital sex, adultery and drug use. Furthermore, the problem has been largely unexplored and governments have been slow to respond to this potentially serious public health crisis. Although, government responses vary dependent on the country, for example Iran has been relatively proactive to work on the issue, while other Islamic countries have been more passive. Secondly, weak democratic practices in Islamic countries and the fusion of faith and statecraft are two main characteristics of the Muslim world. These characteristics result in lack of pro-active efforts for infection control as well account for further denial of the existing problem (Kelley & Eberstadt, 2005).

### **ISLAM and HIV**

Gray (2004) studied the effect of Islam on the prevalence of HIV. This meta-study has tested the hypothesis that non-Muslims have higher HIV prevalence than Muslims. In the other word, religious constraints may have a positive effect on reducing the transmission of HIV or any other sexually transmitted diseases. The meta-study found that six out of seven studies of the relationship between being Muslim and HIV prevalence is lower among people who subscribe to Islam. Furthermore, practicing any religion and behaving in accordance with that religious tenet might have a positive impact on reducing HIV transmission. Since, there are several common

constraints among different religions that are placed on sexuality, such as circumcision that reduce the HIV transmission rates. However, they are some practices in accordance with religious tenets that may have positive as well as negative affects on sexually transmitted diseases (STDs); for example, Islamic marital code (Gray, 2004).

The following provides an overview of pertinent Islamic tenets:

### **Islamic Marital Code**

Islam permits men to marry up to four wives in the same period of time and divorce is easy to get, which increases the number of sexual partners. An individual can have an increase in the number of lifetime sexual partners is well known as a risk factor and may increase the chances of acquiring HIV or other STDs. On the other hand, Islam prohibits having sex outside of the marriage for both males and females, which could decrease the number of sexual partners by reducing sexual activity with commercial sex workers, premarital and extramarital sex. Therefore, behaving in accordance with marital Islamic codes may have positive benefits and prevent the sexual transmission of STDs as well as HIV (Gray, 2004).

### **Consumption of Alcohol**

Consumption of alcohol is prohibited in Islam; prohibition of alcohol consumption may reduce risky sexual behavior such as increased use of condoms. By reducing risky sexual behavior, transmission rates of HIV and other STDs maybe reduced too (Gray, 2004).

### **Ritual washing**

Ritual washing increases penile hygiene; Islam gives close attention to ritual washing, which could lessen the risk of HIV transmission by increasing penile hygiene (Gray, 2004).

## **Circumcision**

As per Islamic rule, all male Muslims should be circumcised once they are born and apparently, circumcision has been identified as a preventative factor for HIV transmission (Gray, 2004).

For these reasons: Islamic marital code, prohibition of the alcohol consumption, ritual washing and circumcision, we may expect that adherence to Islamic tenets may have a positive effect on reducing sexually transmissible of HIV and other STDs. Also, because Islamic practices are different from other religions, we may expect that there is a negative relationship between Islam and HIV compared with other religions. And based on this research, the hypothesis that there is a negative relationship between Islamic religion and HIV prevalence is generally supported. Six of seven study cases show lower HIV prevalence among Muslims (Gray, 2004).

### **Links between Islam and HIV prevalence**

Obermeyer (2006) reviewed some comparative analysis that also shows both negative and positive relationships between the prevalence of HIV and Islam. Some analysis shows low prevalence of HIV in the Middle East is linked to Islam that has influence on Muslims behavior and sexual activities, which affect HIV transmission. On the other hand, there are other studies that demonstrate that Muslim beliefs and trends may have adverse effects that may lead to increased risky sexual behavior and the spread of HIV (Obermeyer, 2006).

### **Negative relationship between prevalence of HIV and Islam**

There are some studies that demonstrate a negative relationship between HIV prevalence and the practice of the Muslim faith. However, being Muslim may decrease the sexual risk factors, hence the result are ambiguous and variable. Thus, there is a possibility that some religious practices among Muslims may decrease the risk of HIV. Perhaps the important is the

degree to which an individual actually adheres to the tenets of the Muslim faith (Obermeyer, 2006).

### **Positive relationship between prevalence of HIV and Islam**

At the same time, there are some other studies that show there is positive link between the prevalence of HIV and Islam. The primary reason is rapidly increasing age for marriage among the younger generation, which may lead to less protection against sexually transmitted diseases. By increasing the age of marriage, the younger population will likely have multiple sex partners that could increase the spread of HIV as, traditional Muslim approaches have tended to be more conservative and HIV was seen as celestial punishment for people with sexual deflection. The only protection is Islam and by obeying the tenets of the religion can they be protected from that punishment; there is no room for complacency (Obermeyer, 2006).

### **Research Challenges toward HIV in the Middle East**

Obermeyer (2006) reviewed several surveys that have been conducted in the Middle East about knowledge, practice and attitudes toward HIV. Reviewing those surveys shows that behavioral factors were rarely included on the surveys. One of the primary reasons for not including behavioral studies in the surveys is related to Middle Eastern culture in which discussion of sexuality is strongly discouraged. Therefore, it is not possible to obtain exact statistics about trends and the prevalence of HIV in the Middle East, and available information is insufficient and most likely under-reported. However, there is evidence demonstrating that there has been greater improvement and attention to the behavioral dimension of the disease, as well as epidemiology. For instance, an analysis of the epidemiology of HIV has been expanded in many countries in Middle East, such as Morocco, Iran, Lebanon and Saudi Arabia. In addition, there are many surveys in Iran and Saudi Arabia among sex workers, children, injection drug users and

prisoners. With this growing evidence, the problem of HIV is being identified; therefore assessing the situation of HIV will likely be possible in the region. However, the World Health Organization and the joint United Nations program on HIV/AIDS estimate that HIV rates may increase in the region. There are several factors that involve increasing the risk of an epidemic. Firstly, in Middle Eastern countries due to war and displacement risky behaviors will be increased and that may increase prevalence of the HIV. Secondly, the spread of sexually transmitted infections is high as a result of unprotected extramarital sex. Finally, subgroups of drug users in some countries may constitute a bridge for transmission of the disease to the public population. In general, the spread of HIV is dependent on two main factors: first, one is the size of the risk group and second, the interaction of this group with general the population. In the Middle East neither factor is well understood, therefore, the problem of HIV prevalence is not well known or understood (Obermeyer, 2006).

### **Arab Attitudes toward HIV/AIDS**

Kandela (1993) reviewed the Arab nations attitudes toward HIV/AIDS. The British medical establishment became conscious of Muslim's attitudes toward HIV/AIDS after publishing the news by Saudi newspaper about death of Iraqi doctor by the name of Yarub Mudrik Al-Mahawi from AIDS. The Saudi newspaper referred to the deceased doctor as an Iraqi national, but some other Arab newspapers referred him as a Saudi. Neither Saudi Arabia nor Iraq wants to be associated with death of the deceased doctor, due to his death from AIDS. Saudi Arabia claimed that he was brought up in Saudi Arabia but he was originally Iraqi. This kind of the attitude toward HIV/AIDS is very common in the Arab world. For instance, an AIDS specialist in Beirut, Dr. Mokhbaat notes Lebanese people have animosity toward people living with HIV, regardless of the cause of the HIV. Although, some of the HIV patients are infected by

blood imported by the government, they are still stigmatized as a pervert. Due to these reactions and attitudes of the public, HIV patients are discouraged from seeking medical treatment in order not to be stigmatized. Therefore it is difficult to find out how many people in the Arab world are infected with HIV. Although, there are official figures from governments in Arab countries, they are underestimating the full extent of HIV. For example, in Marrakesh, access to the figures on proportions of HIV cases among blood donors is impossible, unless the Ministry of Health issues permission. Another example is the Tunisian government claimed that there are about 300 prostitutes in the country; the real figure was much higher with at least 5000 prostitutes. In addition, in Jordan, Saudi Arabia and United Arab Emirates the Ministry of Health rulings make all foreign graduates in medical schools submit to pre-employment tests for HIV if they looking to get a job at government hospitals. Though graduates of local medical schools are exempt and can work without the submission of a HIV test. Also the government usually deports those foreign graduated doctors with a HIV positive result. This is significant to understand the effect of culture among people of the community and attitude toward HIV and other STDs. In the Arab world, many doctors are becoming concerned about the attitude of secrecy, even in government, about actual figures of people infected with HIV. The question will rise about how infected people can receive medical help if they don't know that they are infected (Kandela, 1993).

## CASE STUDIES

The following section present a number of case studies:

### **Knowledge and Attitude Towards HIV/AIDS in Iran**

In this study, my intention is to assess the attitude and knowledge of high school adolescents in regards to HIV in high schools in Iran. Data has been collected by anonymous questionnaires from 4641 high school students, between the ages of 15-17 years, in 52 schools in Tehran. As a result, students identified media, particularly television and radio as a primary source of information about HIV. Only 6% of students mentioned school programs as a primary source for information, which is considerably low and government should give close attention for improvement. There were many misconceptions about the modes of the HIV transmission, and very few students answered questions correctly. In general, knowledge questions were answered incorrectly. For example, 33% of students identified mosquito bites as a primary source of HIV transmission and 21% of students identified swimming pool as a primary sources of HIV transmission. 94% of students expressed a need to obtain more knowledge about HIV and other sexually transmitted diseases. 46% of students believed that people living with HIV should be separated from the public, for instance students with HIV positive should not attend ordinary schools. This demonstrates an intolerant attitude of youth towards HIV and people living with HIV in Iran. Thus it is highly recommended to develop HIV risk reduction programs for youth in high schools in Iran (Tavoosi, Zaferani, Enzevaei, Tajik & Ahmadinezhad, 2004).

## **Knowledge and Attitude Towards HIV/AIDS in United Arab Emirates**

The purpose of this study is to assess knowledge and attitude of Arab students in the national university of Al Ain in United Arab Emirates. Due to social and cultural barriers to directing youth about sensitive subjects such as HIV, very few research studies have been conducted in UAE (Gan'czak et al., 2007).

The UAE is a modern, fast growing and moderately conservative Islamic country. There are two significant reasons that show the importance of addressing the prevalence of HIV in the UAE. Firstly, the country is very fast growing and it has been grown from 180,000 resident in 1968 to 4.1 million in 2005 and is continuing to grow with a population of 51% that are aged 0-19 years. Secondly, the majority of residents are foreign and temporary, only 22% are citizens and the remaining are foreign residents, mainly foreign students and workers. Due to high number of new immigrants to the country and large population of young people, it is highly important to study the level of knowledge and attitudes of people to develop appropriate HIV/AIDS educational programs. Attention should give to youth sex education due to their openness and formation of habits during this period (i.e. using condoms). Therefore, youth are engaged in riskier behavior than adult such as: exposure to addictive drugs and first sexual contacts. Also, a number of new immigrants interning in the country is another factor that could increase the risk of HIV prevalence. This research shows that knowledge of HIV/AIDS among university students was low for 75% of the population and misconceptions about HIV transmission was high. 69% of students thought there is a vaccine and 66% thought there is a cure for HIV. 91% of students stated religion as a primary reason to avoid sexually transmitted diseases such as HIV and extramarital relationships, and premarital testing was favored by 94% of the people. Furthermore, attitudes toward people living (PLH) with HIV were not friendly and

53% of students believed that PLH people should not live among others and the government should force them to live apart. 97% of student strongly agreed to HIV pretesting for all the people entering UAE, and deport those with a positive HIV result. This intolerance expanded to children with HIV and 73% felt that children that are HIV positive should not be allowed to attend school. Books and media were stated, as a primary source of information and 57% believed information offered by schools to be inadequate. 96% felt young people need to have more information about how to protect themselves about HIV and other STDs. Hence, health professionals and schools need to design the HIV/AIDS educational programs to increase knowledge and change attitudes of youth about this epidemic (Gan'czak et al., 2007).

In summary, alarming gaps in knowledge about HIV could put youth in the UAE at risk of contracting HIV. Secondly, youth have common attitudes including fear of and intolerance toward people living with HIV. Currently, there are few HIV prevention programs in UAE and there is a need to expand, including blood and organ screening before transplants and HIV pretesting for foreign workers, university students and couples about to marry. However, these programs are not enough and other educational and training programs should be established to motivate people, especially youth to know more about HIV and its risk reduction methods. Moreover, programs should establish and promote healthier behavior and patterns about HIV and increase the tolerance of society toward people living with HIV (Gan'czak et al., 2007).

### **Knowledge and Attitude Towards HIV/AIDS in Saudi Arabia**

Alghabashi and Guthrie (2015) systematically reviewed 16 different articles about HIV knowledge of Saudi youth and the majority of these articles studied students of primary and secondary schools. Since October 1991, the Ministry of Education in Saudi Arabia directed all secondary schools to implement and provide HIV education to students. However, due to culture

and a conservative viewpoint of society, developed programs targeted the mostly male population. However, significant evidence exists that married women are considered as a high-risk group for contracting HIV in Saudi Arabia. In 2009, data of 5377 reported cases of HIV in Saudi Arabia were collected, in which 91% of cases were married women with the majority aged 30 and above. This statistical data shows the importance of HIV education among married women in Saudi. However, there is a great lack of the attention from government to measuring the level of knowledge of this high-risk group and educate them accordingly. Also, it is interesting to observe that in the 20 years since the research conducted by Abolfotouh in 1995 measuring HIV knowledge and attitudes of Saudis, there is no other research that has been conducted in this area. Therefore, there are not much reliable, valid and gender-specific information available for measuring HIV knowledge and attitude of people toward HIV in Saudi. However, this study was designed to measure the impact of the schools lectures about HIV/AIDS on attitude and knowledge of male high school students in Saudi Arabia. The study revealed: there was no significant difference in level of knowledge between a student exposed to the program and those not exposed to the program and level of correct knowledge was 65.07% and 63.31% respectively. Most of the students believed casual contact such as shaking hands and touching someone infected with HIV could spread HIV. Over two-thirds of students believed there is a vaccine or cure for HIV. Thus, this study demonstrated that the Saudi Arabia high schools students did not have enough information about HIV/AIDS, which could have direct effect on their attitude and behaviour. For example, misconceptions about spreading HIV through casual contact could affect their attitude toward people living with HIV and increase their fears (Alghabashi & Guthrie, 2015).

### **Knowledge and Attitude Towards HIV/AIDS in Kuwait**

This survey is aimed to determine the knowledge and attitudes of people toward HIV/AIDS in Kuwait (Al-Owaish et al., 1999). This cross-sectional sampling survey studied 2219 subjects of both sexes, aged 18 to 60, in 1995. The survey was completed through face-to-face structured interviews. The survey instrument included four sections: sociodemographic characteristics such as education, sex, marital status and age, actual practices in cases of dealing with people living with HIV, knowledge and attitude toward HIV.

The sociodemographic characteristics were as follow:

- 58% of subjects were male and 41.5% female
- 61.1% of subjects were married
- 45% of subjects were in medium socioeconomic status
- average age of subject was 30.4 years

Finding about HIV knowledge was as follow:

- 62% of subjects had high level of knowledge which means level of correct answered was 70% above
- 32.1% of subjects had moderate level of knowledge which means level of correct answered was between 50% to 70%
- 5.9% of subjects had low level of knowledge which means level of correct answered was less than 50%

There were direct relationships observed between socioeconomic status and knowledge of HIV; people in higher social classes had a better understanding of HIV than lower social class subjects. However, misconceptions about modes of transmission was seen such as: casual contact

and sharing lavatory seat with people infected with HIV, mosquito bite, sharing food and clothes, coughing and sneezing. For example, 83.5% of the subjects thought sharing a toothbrush could transmit HIV. This misconception could negatively effect people's attitudes and increase their fear toward interacting with people living with HIV. Therefore, the knowledge score of subjects was highly associated with their practices, attitudes and behavior responses to the survey. Seventy-eight percent of interviewed subjects believed that people infected with HIV should not live among other people in the community and 34% of them felt in order to prevent transmitting HIV infected people should be ostracized. This research was one of the most comprehensive studies about HIV knowledge and attitudes in Kuwait (Al-Owaish et al., 1999).

### **Knowledge and Attitude Towards HIV/AIDS in Turkey**

Ungan, and Yaman (2003) studied Turkish university student's knowledge and attitude toward HIV/AIDS. Self-administrated questionnaires have been given to 1427 students with median age of 18 years old. The result of self-assessed knowledge about HIV/AIDS was that 51% of students declared they knew very much about the epidemic while 17% of students said they knew very little and 32% stated they had an intermediate level of knowledge about HIV/AIDS. This low self-assessed level of knowledge on HIV/AIDS shows a knowledge deficit among students, as 48% of students have mentioned intermediate to very little knowledge on HIV/AIDS. Although 98% of students mentioned that they are aware of the epidemic, but in fact further analysis in knowledge questions showed that 68% of students had very little knowledge of HIV/AIDS. Another concern is the relatively low rate of condom use among students, as 30% of students reported condom use during intercourse. Intercourse without using a condom is a very high-risk behavior. The major source of HIV/AIDS information was the Media, especially television followed by newspapers and magazines. However, 99% of students stated that there

should be a course on AIDS in their curriculum. . Thus, due to lack of knowledge among students and high rate of risky behavior there is a considerable rationale to include a special course on HIV/AIDS as a part of the curriculum at schools (Ungan, & Yaman, 2003).

### **Summary**

In summary, the presumption that Islamic religion affiliated with people's perspective about HIV/AIDS is generally accepted. There are both negative as well as positive relationships between Islam and HIV prevalence. Some practices in Islam may reduce the prevalence of the HIV such as, ritual washing, circumcision and prohibition of alcohol use. On the other hand, Islamic culture may have an adverse effect on people beliefs and attitudes, by encouraging denial and silent attitude toward sexually transmitted diseases.

There are few summary points: first of all, in the Middle East the problem of HIV/AIDS has been largely unexplored due to several attitudes and beliefs of people such as traditional Muslim beliefs in which HIV was seen as celestial punishment for people with sexual deflection. Therefore there is discrimination and stigma applied toward people living with HIV and the infected people may be encouraged to remain silent. Another characteristic of Muslims is the attitude of denial, which is deeply rooted in the culture and religion. This attitude of denial also could be rooted in the belief that the HIV came to Middle East from western countries, in which sexual morals were decadent. This means if someone is infected with HIV, he/she has decadent sexual morals. Therefore due to silence and denial the reliability of collected statistics on the estimated number of people infected with HIV may be inaccurate and obtaining exact statistics about trends of HIV is not possible. Accordingly, available information is insufficient and most likely under-reported; governments have been slow to respond to this potentially serious public health crisis. Therefore, while people deny and keep silent the international community will face

difficulty providing support and treatment that would reduce the prevalence of the HIV.

Secondly, behavioral studies are not being included in the surveys that assess the attitudes and knowledge of people toward HIV because the discussion of sex is strongly discouraged in Middle Eastern culture. Now concerns may rise, without studying the behavioral factors, how change is possible in people's behavior.

Finally, the case studies in Iran, UAE, Saudi Arabia, Turkey and Kuwait show the lack of knowledge and intolerant attitude of youth toward HIV, which is a significant concern. In most of the cases the lack of knowledge about the mode of the transmission and treatment of the HIV has been seen and the general information scores were low. Most of the participants mentioned media, especially television as a main source of the information and expressed a need to obtain more information by schools program.

These gaps in knowledge about HIV could increase the fear and intolerant attitude toward people living with HIV. For example, there were many misconceptions about the mode of the HIV transmission such as many participants believed that casual contact such as shaking hands and touching someone infected with HIV could spread HIV. Therefore, many participants believed that people living with HIV should be separated from the public and even infected children should not attend ordinary schools. Hence, there is a considerable rationale for health professionals and schools to design educational programs about HIV/AIDS to increase the knowledge and change the attitudes of youth toward the epidemic.

## CHAPTER FOUR

### Introduction

This chapter reviews several studies about different methods of educational interventions for preventing HIV/AIDS. The main aim of this chapter is to provide an overview and assess the effectiveness of each method that could be used in preventing of HIV/AIDS. The methods include: peer education, education through media, curriculum-based sex and HIV education, comprehensive sex education, communication interventions and behavioural interventions. In addition, we describe some of the basic effect of HIV/AIDS stigma in variety of education programs and approaches to reduce those stigmas.

### Stigma

Discussion in this section is about reviewing a variety of interventions to reduce and combat the HIV/AIDS stigma. Valdiserri (2002) addressed stigma as a complicated issue, because it has deep roots in the convoluted domain such as gender, race and culture. In general, stigma is referring to a discrediting or undesirable attribute such as sexually transmitted disease (e.g., HIV/AIDS) and association with particular group (e.g., homosexuality/ promiscuity) that an individual possesses, which reduces individual's status in society. Society could refer to different stakeholders of society such as: governments, communities, coworkers, health care provider, friends and families. For example, an individual infected with HIV/AIDS might deny or refuse to disclose his/her status for fear of the possible negative reaction from various stakeholders in society. Therefore, it is important to know about different types of interventions to decrease stigma among People Living with HIV/AIDS (PLHA) by increasing tolerance as well as increasing the willingness of health care providers to treat them (Valdiserri, 2002).

There are several type of interventions for reducing stigma among PLHA, which in this paper we will review four approaches. The first approach is information-based; in this approach information is delivered through written or verbal communication in different channels such as, video, peer education, media advertisement, leaflets, classroom presentation and lecture. In general, content includes factual description of the disease, the method of risk deduction and modes of transmission as well as emphasizing that PLHA should not be blamed for being infected and they should be accepted by society (Brown, Macintyre & Trujillo, 2003).

The second approach is counselling; counselling is a strategy used to provide social support for positive and safe behaviour the intimate discussion for changing the behaviour of people toward stigma. One example for this approach would be a support group for PLHA, in which individuals receive personal support to deal with situation where PLHA feel that they are being excluded by society (Brown, Macintyre & Trujillo, 2003).

The third approach is skills building, in which the strategy is to teach skills at the individual or small group level, for resolving negative attitudes and diffusing conflict situations by group desensitization, role play, scripting and master imagery. For example, group desensitization teaches relaxation training to PLHA in order to decrease their tension in different situations in which there is an exposure to them. The last approach is contact with affected group; this approach believes the interaction between affected group and the general population will reduce the stigma among PLHA, by generating empathy and demystifying misinformation. Interacting involvement could be created through direct interaction between PLHA and individuals or group or indirectly by the media or recorded testimonial (Brown, Macintyre & Trujillo, 2003).

## **Internalized Stigma**

In this section we review the relationship of internalized stigma among people with HIV/AIDS (PWHA) and interventions. Studies show that the majority of people had internalized stigma related to their HIV/AIDS. The degree of their internalized HIV stigma (IHS) was varied and depends on different factors. For example, people with a high degree of IHS were those people that are less likely to attend any interventions to reduce their stigma. However, there are other factors that were involved, such as degree of acceptance from different society stakeholders like their families, coworkers and neighbours, which has a contrasting effect with the degree of internalized stigma. This means lesser acceptance of society resulting in higher internalized stigma of the individual infected with HIV/AIDS. Another factor is the amount of time that person has been infected; if person had been infected with HIV more recently, he/she has higher degree of internalized stigma (Lee, Kochman, Sikkema, 2002).

## **Peer Education**

Peer education is a strategy that is utilized for preventing HIV/AIDS and other sexually transmitted diseases (STDs) in both developing and developed countries. In the other words, peer education is sharing information and knowledge about STDs such as HIV/AIDS, among a small group of people or one to one by a peer match. This method of intervention requires careful selection of peers; individuals should share the same demographic characteristics, such as age and gender, or sharing similar risk behavior such as commercial sex worker and drug users. After selection of individuals as a target group, training will take a place for increasing their awareness and knowledge in order to encourage behavior change among members of that target group (Medley, Kennedy, O'Reilly, Sweat, 2009).

There are two different delivery methods available for peer education, either can be delivered formally in highly structured setting, for example in the classroom, or can be delivered informally during the course of everyday interaction. The rationale behind peer education programs is the assumption that peers have a strong influence on each other's behavior as well as high level of trust and comfort among them, which allows them to have more open discussions on sensitive topics. In addition, interventions that use peer education is more cost effective compared with other intervention methods that rely on highly trained professional staff. Therefore, there is a study in regards of measuring effectiveness of peer education intervention through meta-analysis. This analysis shows that there is a significant association between peer education interventions and incremental knowledge of HIV, which has a positive impact on changing target group behavior. Firstly, it increased condom use among individuals who share the same risk behavior such as commercial sex worker. Secondly, it reduced equipment sharing among injection users such as drug users. However, there are always number of advantages and disadvantages to each intervention methods, and limitation to peer education interventions is that method had no significant effect on STD infections (Medley et al., 2009).

### **Communication and Media**

Keller and Brown (2002) studied media interventions effects on promoting responsible sexual behavior. In media interventions, information could be communicated through two channels. The first channel is a small media channel, such as brochures and pamphlets and the second channel is a mass media channel, such as campaigns and news coverage. This study shows that there is a strong association between media programs and the promoting of sexual responsibility. For example, there is evidence found in international studies, which shows communicating family planning by radio, television and print media are significantly associated

with increasing contraceptive use. This means women who view more family planning messages on media use more contraceptives than those who see fewer messages through media. Therefore, health advocates in order to work with the media toward healthier media consumers, have developed several strategies. Each strategy has its own strengths that we will review here (Keller & Brown, 2002).

### **Mass Media Campaigns**

First mass media campaigns, which uses entertainment education and social marketing is the most common form of the mass media used in public health. Health oriented campaigns are very similar to commercial product campaigns in which they create specific effects in a large number of people in specific period of time, by using a number of different media channels. Developing entertaining programming that features socially responsible messages through televisions, radios and movies, is one of the most effective ways to reach the public. In general, entertainment education is used worldwide to create favorable attitudes, increase knowledge and change public behavior by putting educational content into an entertaining format. In today's world, there are 20 countries that use entertainment education as a significant tool to promote reproductive health. There are several studies that have been done in this area, which shows that communication through mass media campaigns, have significantly decreased teen pregnancy, increased condom adoption and use of contraceptives among women (Keller & Brown, 2002).

Brown (2002) studied mass media's influence on sexuality and she believes the mass media has high influence on people's sexual behavior, as it is a highly accessible way for individuals to see and learn about sexual behavior. This is specially relevant for youth, as parents and schools may not be willing to discuss sexual topics with them, therefore young people develop their own pattern of sexual behavior and beliefs; mass media could have great influence

on them. Also in 2005, Taylor studied the effect of visual and verbal sexual television content to determine mass media's effect on attitudes and beliefs of people. Evidence found that verbal and visual sexual content has a high influence on people's beliefs about sexual activities (Brown, 2002).

### **Media Literacy**

The second strategy is media literacy, this strategy gives people tools to critically analyze and develop messages they would hear or see in media channels. This method believes in personal changes such as self-esteem improvement for example to say no to sex, taking responsibility for other's lives by participating in safe sex, sharing experience with others like negotiating condom use and learning to self express (Keller & Brown 2002).

### **Media Advocacy**

In this strategy, health activists believe that individuals are not able to change unhealthy behavior unless there is a policy and systematic changes that support desired behaviors. Therefore, health activists have begun with bringing health issues to the attention of public and policy makers, by generating news that attract the mass media. Rather than waiting for media to take an action first in regards of a concern issue (Keller & Brown 2002).

### **Small Media**

Another strategy is using small media, which have an impact on changing sexual behavior and attitudes through interpersonal interaction. Thus, small media delivers messages through several tools such as brochures, classroom based curricula, pamphlets and documentaries. There is an example of small media projects by the AIDS Community Demonstration for promoting safe sex behavior among women with low income living in Long

Beach. They have used role model stories, delivered in flyers, pamphlets and community newsletters (Keller & Brown 2002).

### **Comprehensive Sex Education**

Another educational intervention is comprehensive sex education programs, which consist of several comprehensive sex education courses usually offered by schools. Topic includes: contraceptive use, virginity status, and likelihood of pregnancy and probability of contracting a sexually transmitted diseases/HIV. In 2006, Sabia studied the relationship between those comprehensive sex education courses and adolescent sexual behavior and health. In his research he found that both opponents and proponents of these methods are correct and mistaken. Proponents are commonly correct when they claim that comprehensive sex education does not encourage adolescent sexual activity, but they are incorrect by claiming that investment in comprehensive sex education programs produce great health benefits. On the other side, opponents are correct by claiming that comprehensive sex education programs are associated with adverse health outcomes. For example in 1994, about 90 percent of teens between the ages of 15 and 17 years old in United States, had been offered comprehensive sex education courses, but in that period the pregnancy rate of those teens increased by about 5 percent. They are incorrect by asserting this relationship causally. However, comprehensive sex education programs are in the interest of policymakers. They consider sex education programs as an informational tool that is designed to reduce the costs of sexually transmitted diseases as well as future cost reduction for teen pregnancy (Sabia, 2006).

In addition, there is another recent study conducted to examine the relationship of comprehensive sex education interventions with early sexual debut. This means to get real

comprehensive sex education would reduce the number of adolescents who might become early starter of sexual activities. The finding of this study included merits of comprehensive sex education interventions over abstinence-only interventions, due to differences on viewpoint of two programs. Comprehensive programs are addressing the issue, as it is a healthier choice to delay sexual debut, and in the mean time, offering information on the correct use of prevention methods and contraceptives, for those teens who are sexually active. But abstinence-only programs do not provide any information for those teens that are already active sexually, and advocate delaying sexual debut until marriage (Erkut et al., 2013).

There are many other researches and studies that exist to support the effectiveness and merit of sex education. One of most valuable studies in this area is the impact of sex and HIV education on the sexual behavior of young people around the world. This article reviewed 83 papers in different parts of the world. In this study evidence is strong that these programs significantly changed sexual behavior by increasing condom and contraceptive use and decreasing or delaying sexual behavior in youth. (Kirby, Laris & Rolleri, 2007)

There is another study in this area, which demonstrate the limitations and barriers of this method of intervention. This study focused on parents and sex education the study demonstrate a mismatch between actual sex education content that School-Age youth are receiving and parent opinions and preferences. This mismatch could be assumed as a barrier to the comprehensive sex education intervention (Eisenberg, Bernat, Bearinger, Resnick, 2008).

### **Behavioral Interventions**

In this section, we will focus on the role of theory in HIV prevention as a behavioral intervention. As there is no absolute cure for HIV nor a vaccine to prevent this disease, then this is clear that preventing the transmission and the acquisition of HIV is the most important factor.

Because HIV is a consequence of behavior, then the focus on behavior and changing behavior is the best choice for prevention on this disease. Therefore, there is growing evidence that shows designed, targeted, theory based behavioral change interventions are very effective in decreasing the spread of HIV. Perhaps, it is not important who the individual is, but it is important what that individual does to expose themselves or others to HIV (Fishbein, 2000).

For the above-mentioned reason it has become important to work and educate effectively those people living with HIV, to help them adopt and maintain healthier and safer behavior. Because they are the source of spreading this disease, promoting healthier and safer behavior among them will reduce spread of the HIV (Crepaz et al., 2006).

This is a behavioral science theory and research can play an important role in protecting public health, by changing people's behavior in regards to sexually transmitted diseases as well as HIV. However, due to involvement of several variables in shaping interventions implementing, behavioral programs are complicated. Variables that need to be considered are: demographic variables; other individual difference variables; attitudes toward target and personality traits, which would have an effect on behavioral beliefs and values, normative beliefs and motivation; and efficacy beliefs. Accordingly, those beliefs are shaping norms and attitudes that result in shaping individual behavior. Thus in order to change any individual behavior all the variables need to be considered (Fishbein, 2000).

Fishbein (2008) describes the integrative model of behavioral prediction as the latest formulation of the reasoned action approach for improving public health and medical decision-making. This theory helps in identifying the variables that are involved in the behavioral change of individuals (Fishbein, 2008).

## Summary

In summary, there are advantages and merits to each of the interventions for HIV/AIDS. For instance, behavioral interventions are a method that believes in changing the behavior of people through addressing behavioral variables that influence the individual's behavior. The reason behind this approach is HIV/AIDS is a disease, which occurs as a consequence of behavior, thus if we can change the behavior of individuals, for example to take less risk, this will decrease the spread of the disease, accordingly. Comprehensive sex education, believes in educating adolescents, starting from the sixth grade, and teaching them different methods of prevention by several comprehensive sex education courses that are usually offered by schools. Although there is some criticism to this approach it has its benefits, as it covers many areas of sexuality not only prevention. These include: contraceptive use, virginity status, likelihood pregnancy and probability of contracting a sexually transmitted diseases/HIV. Another commonly used approach is peer education, in which a small group of people or one-to-one peers are sharing information and knowledge about STDs such as HIV/AIDS. The assumption is that peers have a strong influence on each other's behavior. Finally, media programs promote the responsible behavior in sexual activities and encourage people to prevent sexually transmitted diseases. This approach usually works in the indirect way, for example it teaches people how to use condoms through storytelling or through advertisement. In the end, although each method has its own approach, they all share one common goal, which is reducing the spread of sexually transmitted diseases as well as HIV/AIDS, by increasing prevention.

## CHAPTER FIVE

### **Introduction**

This chapter provides final summary with reference to the paper's objectives, recommendations and conclusions. This paper contributes to the understanding the effect of culture and religion on attitudes and knowledge of youth about HIV & other lethal sexually transmitted diseases in the Middle Eastern countries.

### **SUMMARY**

The focus of this paper had three main research objectives:

#### **Objective One**

To determine the knowledge and attitude of people living in Middle Eastern countries about HIV & other lethal sexually transmitted diseases.

This paper has been reviewed the literature about knowledge and attitudes toward HIV/AIDS in Middle Eastern countries. The studies reported the level of knowledge and attitudes of people in regards to HIV Iran, UAE, Saudi Arabia, Turkey and Kuwait. Four of five study cases show the lack of knowledge and five of five cases show the intolerant attitude of youth toward HIV/AIDS. In most of the cases the lack of knowledge about the mode of the transmission and treatment of the HIV has been seen and general knowledge scores were low. Most of the participants mentioned media, especially television as a main source of the information and expressed a need to obtain more information through school programs. These gaps in knowledge of HIV could increase the fear and intolerant attitude toward people living with HIV. For example, there were many misconceptions about mode of the HIV transmission such as many participants believing that casual contact such as shaking hands and touching

someone infected with HIV could spread the virus of HIV. Therefore, many participants believed that people living with HIV should be separated from the public and even infected children should not attend ordinary schools. In general, a low level of knowledge and intolerant attitudes of people toward HIV/AIDS is a significant concern in the Middle East because it would increase stigma among infected people and may encourage them to remain silent. This may be one of the main reasons that the number of new HIV infections is rising in the Middle East.

### **Objective Two**

To assess how Islamic tenets could affect the prevalence of HIV, both positively and negatively.

There are several comparative studies that show both negative and positive relationships between prevalence of HIV and Islam. Obermeyer (2006) found that the low prevalence of HIV in the Middle East is linked to Islam and their influence on behavior toward sexual activities, which affect HIV transmission. On the other hand, in the same study it demonstrates that Muslim beliefs and trends may have adverse effects on attitudes and beliefs and increase risky behavior and the spread of HIV. Therefore, some comparative analysis shows a negative relationship between HIV prevalence and the Muslim population. In the other words, being Muslim will decrease risk, but still it's somewhat ambiguous and variable. Gray (2004) studied the effect of Islamic tenets on the prevalence of HIV. There is a possibility that some Islamic tenets and religious practices among Muslims may decrease the risk of HIV and other sexually transmitted diseases, such as low alcohol use, as alcohol is prohibited in Islam, that could lead to reduce risky sexual behavior. Another tenet is male circumcision, as per Islamic rule, which it could reduce sexual infections. Ritual washing is another factor that penile hygiene could increase by

ritual washing regularly and Islam gives close attention to ritual washing, which could help on lessening the risk of HIV and other STDs transmission. (Gray, 2004)

Therefore, based on their evidence, it is possible that some practices of Islam could decrease the spread of HIV. At the same time, there are other analyses that show there is positive link between the prevalence of HIV and Islam. The primary reason is rapidly increasing age for marriage among the younger generation, which may lead to less protection against sexually transmitted diseases. For example, by increasing the age of marriage, the younger population may likely have multiple sex partners and that could increase the HIV spread and other sexually transmitted diseases. Particularly, traditional Muslim approaches have tended to be more conservative and HIV was seen as celestial punishment for people with deflection. And the only protection is Islam and by obeying religion they can be protected from those punishment and there is no room for complacency. (Obermeyer, 2006)

### **Objective Three**

To ascertain how culture affects people's perceptions and beliefs about sexually transmitted diseases in the Middle East.

Islamic culture may have an adverse effect on people beliefs and attitudes, by encouraging denial or a silent attitude toward sexually transmitted diseases. Kelley & Eberstadt (2005) studied the unique perspective of Muslim people and the effect of Islamic culture on HIV. As noted, perceptions, attitudes and beliefs toward HIV is concealed as "behind the veil" and the main concern is the attitude of denial in the Islamic world that is deeply rooted in the culture (Kelley & Eberstadt, 2005).

Also this attitude of denial also could be rooted in the belief that the HIV came to the Middle East from western countries, in which sexual morals were decadent. This means, if someone is infected with HIV they have had decadent sexual morals (Obermeyer, 2006).

As mentioned previously, Muslims believe HIV is a celestial punishment for people with deflection. Therefore, there is a huge discrimination and stigma applied toward people living with HIV and infected people may encourage staying silent. Furthermore, the discussion of sexuality is strongly discouraged in Middle Eastern culture (Obermeyer, 2006).

As per this review, one of the most significant factors for reducing the prevalence of HIV/AIDS is to increase prevention. In order to increase prevention individuals need to have a comprehensive knowledge about HIV and modes of the transmission. In Middle Eastern countries a lack of knowledge about HIV has been found, which could be the main reason that Middle East is the only region in the world in which the number of new HIV infections is increasing (UNAIDS, 2015). Therefore, considerable rationale for health professionals and schools to design educational programs about HIV/AIDS to increase the knowledge and change the attitude of youth toward the epidemic. In most of the case studies, media was a primary source of information although there are other effective educational intervention methods that have been implemented worldwide. These include: peer education, media intervention, curriculum-based sex and HIV education, comprehensive sex education, communication interventions and behavioural interventions. These methods are effective for increasing knowledge and changing attitudes of people toward HIV/AIDS. Therefore, health professionals and schools may adopt some of those programs in designing the HIV/AIDS curriculum.

## **Conclusion**

The, Middle East is the lowest affected region by HIV and the number of infected people

is about 230,000 only (including North Africa). However, this is the only region that the HIV burden is increasing fast. The estimated number of people infected by HIV rose by 26%, from 2000 to 2014. In 2000, there were 18000 people newly infected by HIV and in 2014 this number has to 22000. In addition, the estimated number of AIDS related deaths has been increased more than trebled, from 2000 to 2014. In 2000, there were only 3,600 AIDS related deaths and in 2014 this number has been increased to 12,000 (UNAIDS, 2015).

Therefore, this is significant for Middle Eastern countries to halt the prevalence of the HIV/AIDS and force the epidemic decline through educating individuals about HIV. Though culture and religion have a remarkable effect on communicating and implementing the educational programs about sexually transmitted diseases. Still there are some effective educational methods identified in Chapter Four, which could be adopted by Islamic culture and implemented in the schools for increasing youth's knowledge about HIV/AIDS and ensuring disease prevention.

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