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The role of stigma in preventing early HIV detection in the Middle East and North Africa

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Acquired Immune Deficiency Syndrome (AIDS) is a chronic disease caused by the human immunodeficiency virus (HIV), which infects the immune cells CD4, leading to its destruction. The disease develops in people with HIV to AIDS when the number of CD4 cells in the blood is less than 200. About 230,000 people are diagnosed with AIDS in the Middle East and North Africa (MENA) region, including about 10000 cases in Saudi Arabia. AIDS stigma is the social link between AIDS and negative perceptions and attitudes towards an individual or a group in a specific community. The collective evidence on the prevalence of the HIV stigma in the MENA region remains insufficient. Hence, this review aimed to evaluate the published evidence on the extent of AIDS stigma in the MENA region and the related outcomes. Searching of Google Scholar, Scopus, PubMed, and Web of Science databases was done up to June 2020. The majority of retrieved studies reported low levels of knowledge, as well as negative attitudes towards people living with HIV/AIDS. Some studies noted an inverse correlation between the level of knowledge and the negative attitudes of the participants. This stigma leads to denial, self-blame, self-isolation, failure to disclose HIV status, violence, and even suicide. Educational interventions are needed to raise knowledge and change attitudes in the media, schools, and healthcare professionals' communications. More studies are also needed to assess the prevalence and impact of AIDS-related stigma at the patient and society levels.

Keywords: AIDS; HIV; Stigma; MENA region; Saudi Arabia

INTRODUCTION

HIV prevalence worldwide and in the Middle East and North Africa (MENA) region

Human immunodeficiency virus (HIV) is a retrovirus that affects 36.7 million individuals, of whom 34.9 million individuals are adults (Douek et al. 2009). Following infection, the patient may have no symptoms or experience flu-like symptoms, followed by a long asymptomatic period. The patient eventually develops acquired immunodeficiency syndrome (AIDS), becomes predisposed to opportunistic infections, and dies within three years without treatment. No cure or vaccine for HIV is present; however, antiretroviral therapy (ART) could increase the life expectancy of these patients (Antiretroviral Therapy Cohort 2017).

According to the Joint United Nations Program on HIV/AIDS (UNAIDS), the global numbers of new HIV infections and AIDS-related deaths in 2015 have decreased to 2.1 million and 1.1 million, respectively. In the Middle East and North Africa (MENA) region, 230,000 people have already been diagnosed with HIV infection, with 12000 related deaths in 2015 (HIV/AIDS 2016). Although in Saudi Arabia, between 2000 and 2009, 10217 cases were reported, including 2,956 in Saudi nationals and 7,261 in non-Saudis

(Mazroa et al. 2012), a recent report, in 2018, indicated that "the total number of people living with HIV (PLHIV) and know their status by the end of 2017 was 6,256 which is equivalent to 76% of the estimated number of PLHIV" (SAU, 2018). This report also revealed that the number of patients receiving ART (over the period 2013-2017) had consistently increased from 2597 to 5651, respectively.

Approximately 18.2 million HIV patients worldwide have been estimated to be on ART, and only 16% of HIV patients in the MENA region can get access to therapy, a low percentage compared to other world regions (46%) (HIV/AIDS 2016). However, in Saudi Arabia, according to the global aids response progress report, ART is provided free of charge to all infected Saudis based on "North American DHSS standards and guidelines", with starting point of treatment when $CD4^+$ cell counts decline less than 500 cells/µl, and includes all lines of ARV drugs, contributing to the relatively high anti-HIV treatment access rate in this area compared to other MENA regions.

Although Saudi Arabia has a low prevalence of HIV because it is a conservative Islamic country, it may be liable for larger epidemics due to several reasons: 1) Lack of knowledge about reproductive health practices (such as condom use) among the general population, 2) Increasing numbers of refugees due to wars and conflicts in that region, 3) Increased numbers of citizens who work abroad and may return with HIV infection, and 4) Pervasive fear and stigma from HIV infection. Stigmatizing individuals living with HIV infection affects their physical, psychological well-being, as well as their quality of life (Das and Leibowitz 2011, Singh et al. 2015). If health care providers showed stigmatizing attitudes, this would affect the outcomes of the disease (Maman et al. 2009, Young and Bendavid, 2010).

The concept and process of HIV stigma

Stigma is defined as labeling a person or a group to link to undesired behavior (Link and Phelan 2001). Different models have been proposed to classify stigma. Block and Brown et al. classified stigma into felt (subjective personal feeling) and enacted (a real-life experience of discrimination) (Block 2009, Brown et al. 2003). Earnshaw and colleagues proposed a model that classified stigma into three types: self-stigma (or internalized stigma: in which a person/group is devalued due to stigma), perceived stigma (recognition of past experiences of discrimination), and anticipated stigma (expectation of discriminatory behavior in the future) (Earnshaw et al. 2015). In general, the victims of stigma experience separation from other society members, stereotyping, as well as status loss and bullying.

Disease stigma is the social link between a medical condition and negative perceptions and attitudes towards an individual or a group in a specific community (Deacon 2005). For HIV and AIDS-related stigma, patients experience personal and social devaluation based on their disease status. HIV is most commonly transmitted via heterosexual intercourse (culturally connected to sexual promiscuity); therefore, the stigma is mainly related to transmission mode. The sexual mode of transmission, being preventable and undesirable, is associated with more stigma than another mode of transmission over which the subject had less control as blood transfusion (Holzemer et al. 2009). Two groups liable to HIV transmission and stigmatization within the African community are sex workers (especially women) and homosexual men. The acquisition of HIV infection in these individuals leads to dual stigma within that community (Duffy 2005).

HIV-related stigma in the Middle East and North Africa

Through a PubMed search on the Medline database (via PubMed), the researcher identified several published studies from the MENA region about the attitudes of different populations towards HIV infection and AIDS patients. The results of these studies are summarized in Table 1.

The majority of retrieved studies reported low levels of knowledge, as well as negative attitudes towards people living with HIV/AIDS. Some studies noted an inverse correlation between the level of knowledge and the negative attitudes of the participants i.e. the less the knowledge the participants exhibited, the more negative attitudes they expressed towards people living with HIV/AIDS. Most of these studies were conducted on university students, probably due to the easier access to this population and their homogenous characteristics. Nevertheless, this creates the limitation that the results do not fully represent the entire communities in the MENA region.

The studies identified some risk factors for having less knowledge and holding negative attitudes towards HIV/AIDS.

Table 1: Methods and results of the reviewed studies

Study ID	Country	Population	Number	Study tool	Main findings
Haroun et al. 2016	UAE	University Students	2294	Knowledge and attitudes questionnaire	The study participants achieved an overall average knowledge score of HIV.AIDS of 61%. Non-Emirati and postgraduates exhibited higher knowledge levels than Emirati and undergraduate students. About 85% of the students expressed negative attitudes towards people living with HIV, with Emirati expressing more negative attitudes than non-Emiratis.
Peter et al. 2009	UAE	High school students	1903	Rapid peer-based HIV/AIDS educational intervention	The study recorded evident misconceptions about HIV modes of transmission, as well as intolerant attitudes towards those living with HIV. Following the intervention, the mean knowledge score increased from 65% to 82%, and attitudes score from 51% to 64%. Females exhibited slightly lower baseline \knowledge than males but had greater improvement in knowledge and attitudes.
Badahdah and Sayem 2010	Yemen	University Students	501	Knowledge and attitudes questionnaire	The students had multiple misconceptions about HIV/AIDS and expressed negative attitudes toward those were living with HIV/ AIDS. Females had better attitudes, although they had lower knowledge than males.
Badahdah 2010	Saudi Arabia	Male university students	162	Knowledge and attitudes questionnaire	The degree of knowledge was inversely associated with attitudes towards those living with HIV. However, no significant correlation was observed between religiosity or worry about HIV infection and AIDS stigma.
Omer et al. 2014	Saudi Arabia	Male and female AIDS patients	18	Narrative interviews	HIV-infected patients only told their physicians and spouses about their diagnoses. All participants felt stigmatization, discrimination, and shame. They used spiritual coping strategies to deal with the fears of punishment from God, fear of the disease and death, and lack of psychosocial support.
Badahdah et al. 2009	Yemen	University students	318	AIDS Stigma scale	The study aimed to develop and implement a 10-item Arabic AIDS Stigma Scale.
Ganczak et al. 2007	UAE	University students	267	Knowledge and attitudes questionnaire	The authors reported significant knowledge gaps and negative attitudes towards people living with HIV.
Badahdah and Foote 2010	Kuwait, Bahrain , and Jordan	Female University students	227	Knowledge and attitudes questionnaire	Only in Bahrain was knowledge about HIV and AIDS inversely related to negative attitudes toward people with HIV/AIDS. AIDS-related shame was a strong predictor \of AIDS stigma in all three countries.
Soffer 2019	Israel	Israeli Arabs and Jews	183	Knowledge and attitudes questionnaire	Compared to Jews, Arabs had more misinformation about HIV transmission. Arabs scored higher on the Summary Index of Stigma than did Jews.

Mutchler et al. 2018	Lebanon	Beirut gay community	10 different young gay men in at least 3 unique settings	A qualitative examination of the internal dynamics within the Beirut gay community	Lebanese gay individuals stated the need for safe socialization areas and locating and connecting with other young gay men. The study also confirms the presence of external threats to the gay community as stigma, cultural norms, and criminalization of refugees.
Kaplan et al. 2016	Lebanon	Women with HIV/AIDS	10	Narrative interviews	For Lebanese HIV-infected women, AIDS meaning is affected by contextual factors as economics, religion, culture, collectivism, and gender norms. To create new meaning, they learn to navigate the HIV-associated challenges and view their lives as “normal.”
Badahdah and Pedersen 2011	Egypt	HIV-positive women	27	Narrative interviews	The sampled women identified five themes: fear of stigma, social support, financial constraints, characteristics of ART, and reliance on faith. Most patients in this study were highly motivated to achieve perfect adherence.

For example, females were more likely to have less knowledge than males; however, they showed the most improvement after group-based learning interventions about HIV and its modes of transmission. The role of religion was debated among different studies. While one study showed variable knowledge and attitudes between Arabs and Jews, another showed no association between the degree of religiosity and AIDS stigma. Although multinational studies would be useful in developing the full picture in the region, only one study compared the attitudes in three countries. More studies of this sort are encouraged.

When people living with HIV/AIDS were surveyed, they reported feeling stigmatization, discrimination, and shame. They were afraid of different sources, including God, disease and death, lack of social support, financial constraints, and even treatment (ART). To deal with these fears, they employed various strategies, including spiritual strategies and learning to navigate the HIV challenges and view their lives as normal. One study among gay men in Lebanon highlighted the need for safe socialization areas and locating and connecting with other young gay men.

Focusing on Saudi Arabia as an example, Badahdah conducted a cross-sectional study on 162 male university students and found that their knowledge levels about HIV/AIDS were low. The knowledge levels were inversely correlated with the attitudes towards those living with HIV/AIDS (Badahdah 2010). In another study among Saudi HIV/AIDS patients, the authors reported feeling high levels of stigma that prevented them from disclosing their health status, except in spousal or healthcare settings. However, the patients used many spiritual coping strategies to overcome their sense of stigmatization and fear from God (Omer 2014).

Consequences of HIV-related stigma

The consequences of AIDS stigma extend on both the patient and society levels. On the patient level, AIDS stigma causes silence, denial, self-blame, self-isolation, failure to disclose one's HIV status, and even violence. Moreover, it is associated with negative emotions like shame, guilt, anxiety, fear, and self-blame (Block 2009, Zungu-Dirwayi 2004). There is even self-stigmatization in which patients accept the society dictates associated with the labels. Therefore, AIDS stigma has multiple negative psychological effects on the patients and may not accept ART with detrimental consequences on their treatment.

On the societal level, the denial and failure to disclose the patients' diagnoses may risk increasing the spread of the disease. Several studies have documented an association between AIDS and increased suicide rates and highlighted stigma as one of the involved mechanisms in this association (Glass 1988, Kalichman et al. 2000, Marzuk et al. 1988). Also, violence towards society may counter the society-dictated stigma against the patient (Wallace et al. 1996). Schönteich suggested that AIDS contributed significantly to South Africa's high crime rate in the early 21st century (Schönteich 1999).

Prevention strategies against HIV-related stigma

Over the years, different groups suggested recommendations to tackle HIV stigma in various populations; however, executing these suggestions is unsatisfactory. Former authors in the MENA region highlighted the need for an HIV/AIDS education designed to raise knowledge and change attitudes and respect community values in the media, schools, and health professionals' communications (Barss et al. 2009). Another study from Cameron implemented a school-based stigma reduction program that adopted educational strategies to facilitate people's acceptance of HIV into society (Jacobi et al., 2013). Other studies highlighted the role of faith-based organizations and religious leaders in reducing AIDS-related stigma (Fonchingong et al. 2004, Hartwig et al. 2006, Otolok-Tanga et al. 2007). Interventions to reduce AIDS-related stigma should provide recent information about HIV transmission mode and encourage disclosure of the infection status (Herek 2002). HIV prevention strategies should improve the capability of personal decision-making and promote protecting oneself from AIDS without promoting blame for infected people.

CONCLUSION

Studies from the MENA region highlight poor knowledge and negative attitudes towards people living with HIV/AIDS. AIDS patients reported fear and stigma at different levels. Educational interventions are warranted to raise knowledge and change attitudes in the media, schools, and healthcare professionals' communications. Everyone should be involved, from political organizations, religious organizations, and society members. More studies are needed to assess the prevalence and impact of AIDS-related stigma on

the patient and society levels.

CONFLICT OF INTEREST

The author declared that the present study was performed in the absence of any conflict of interest.

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AUTHOR CONTRIBUTIONS

SAA designed, wrote, reviewed the manuscript, and approved the final version.

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