

Stigmatized Attitude of Healthcare Providers: A Barrier for Delivering Health Services to HIV Positive Patients

Nooshin Zarei¹, MA; Hassan Joulaei², Pharm, MPH; Elahe Darabi³, MA; Mohammad Fararouei⁴, PhD

¹Shiraz HIV/AIDS Research Center, Shiraz University of Medical Sciences, Shiraz, Iran;

²Health Policy Research Center, Shiraz University of Medical Sciences, Shiraz, Iran;

³Department of Sociology and Social Planning, School of Economy, Management and Social Sciences, Shiraz University, Shiraz, Iran;

⁴Department of Epidemiology, School of public Health, Shiraz University of Medical Sciences, Shiraz, Iran

Corresponding author:

Hassan Joulaei, Pharm, MPH; Shiraz HIV/AIDS Research Center, 2nd floor, Voluntary Counseling and Testing Center, Lavan Ave, Delavaran-e Basij Blvd, Khatoun Sq, Shiraz, Fars, Iran

Tel/Fax: +98 71 37386272; Email: joulaei_h@yahoo.com

Received: 11 March 2015 Revised: 25 May 2015 Accepted: 1 June 2015

ABSTRACT

Background: Despite the success of developed countries in preventing the spread of HIV/AIDS, the disease is expanding in developing countries where an unfavorable attitude exists among people, health professionals and employees. This study aimed to assess the stigmatized attitude among health care providers toward people living with HIV (PLWHA).

Methods: The study is a cross-sectional survey. The data were gathered using a structured questionnaire. The study sample included 575 health care providers of public and private hospitals in Shiraz. The data were gathered using a structured questionnaire in spring 2014. Data analysis was carried out using the Statistical Package for Social Sciences, version 21.

Results: The most dominant attitude of the health care providers toward HIV/AIDS patients was related to fear (42.42%). According to the results of this study, there was a significant relationship between stigmatized attitude of the health care providers and their religious beliefs, society stigmatized attitude, and knowledge of transmission routes. The relationship between social stigmatized attitude of health care providers and their knowledge of transmission routes, with their willingness to provide services to patients is significant, as well ($P < 0.05$). 39.6% and 46.2% of the respondents preferred not to provide services to the prostitutes and homosexual patients.

Conclusion: Fear of contamination and social stigmatized attitude are the main impediments to dealing with patients and providing services to them. Hence, it seems that creating an effective knowledge about transmission and correcting the socio-cultural beliefs of health providers are two key strategies to tackle this problem.

KEYWORDS: Stigma; Discrimination; HIV/AIDS; Health services; Knowledge

Please cite this article as: Zarei N, Joulaei H, Darabi E, Fararouei M. Stigmatized Attitude of Healthcare Providers: A Barrier for Delivering Health Services to HIV Positive Patients. *IJCBNM*. 2015;3(4):292-300.

INTRODUCTION

AIDS-related stigma is formed in social environment. The circumstances in which the patients live is likely to internalize the stigmatized attitude in them.¹ According to UNAIDS (2000), in the developing world, the stigma and discrimination is a social and cultural phenomenon which is associated with interaction of all groups of people rather than the consequence of the patients' behavior.²

This disease is incomprehensible and unacceptable by general population due to false beliefs and lack of information, and is associated with a negative viewpoint and a discriminatory thought even by medical care providers.³ The reason for this rampant discrimination is the relation of AIDS to sexual behavior and intravenous drug abuse, making negative label broadly conceivable for the disease.

According to research, gender is an important factor in stigmatized attitude. Men show less compassion, and hence more stigmatized attitude than women. Talking about HIV/AIDS is associated with low levels of stigma,⁴ but as long as stigmatized attitude prevail and people don't want to talk about their illness, stigmatized attitudes will continue. Therefore, it is recommended to discuss about AIDS in order to reduce gender roles and stigmatization.

The national experience of many countries, particularly the United States of America as the main origin of HIV and AIDS, and epidemic population movements from rich to poor countries show that, in fact, poor social levels are at a higher risk to suffer from this disease due to economic-cultural poverty, intensified structural pressures, and ultimately less chance of a positive life style away from risky behaviors.⁵ In this context, improper attitude of health personnel as people who are in touch with people can impose more pressure on patients. The stigmatization is known as the greatest obstacle to public reactions.⁶

Studies show that fear of disclosure of HIV due to stigma is the main obstacle for seeking

care, resulting in lack of access to minimum care and support.^{7,8} AIDS-related stigma can have negative impact on medication adherence and use of health services,⁹⁻¹¹ and for health professionals and patients, it is a significant obstacle in the treatment course and services and its postponing.¹²⁻¹⁴ In addition, internal stigma, negative self-image, and public perceived attitudes and stigma lead the patients to hide the disease, their depression, and suffering a low quality of life.^{15,16}

According to previous findings, an average level of discriminatory attitudes exists among health care workers in many studies. Factors associated with high levels of these attitudes among employees include high levels of irrational fear of HIV/AIDS, working in educational hospitals versus non-educational and medical diagnostic centers, low level of education, and being male gender.^{17,18}

Studies show that a significant relationship exists between HIV-related individual discriminatory attitudes and perceived institutional support and discrimination in the health care systems. Also, public attitude toward people with HIV/AIDS is a critical determinant for discrimination.¹⁹

Lack of sufficient employees' knowledge of the health sector, fear of communication due to imperfect knowledge about the routes of transmission, and believing that HIV is associated with unethical behaviors are three main reasons of HIV-related stigma in the health system.²⁰ Inadequate knowledge of health care professionals of transmission routes²¹ results in an inappropriate fear of transmission which will be followed by stigmatized attitude and discriminatory behavior. Therefore, medical care professionals need to be alert about prevalent stigma and misinformation of the disease, and understand the negative effects of these factors on HIV patients living in the society.²²

Since stigma and discrimination is an obstacle to treatment and care²³⁻²⁵ and fear of health care providers due to stigmatized attitude often prevents the patients from referral to medical centers,²⁶ in this research,

we attempted to understand how much the viewpoints and behaviors of health care providers are associated with stigma and discrimination and how much they affect provision of services to patients.

MATERIALS AND METHODS

This descriptive-analytic study was performed through a quantitative approach. The study population consisted of all medical personnel of public and private hospitals in Shiraz, providing health services for patients, including doctors, nurses, technicians, and laboratory staff, etc. Data collection was conducted from June to August 2014. Participants completed a self administered questionnaire delivered to them at their workplace. Eight hospitals were randomly selected from a list of private and public hospitals provided by Research Deputy of Shiraz University of Medical Sciences using simple random sampling method. For this purpose, the name of each hospital was written on a piece of paper, put them into a box and 8 pieces were drawn randomly. Participants were selected randomly, according to the personnel lists existing in the hospitals' wards. Verbal consent was received from the participants. Exclusion criteria were lack of willingness to respond to the questions. This obliged the researcher to frequently visit the respondents and in case of lack of response, new subjects were substituted. The sample size for estimation of any proportion with 6% precision was estimated 529 participants, using the following formula:

$$n=(z_{1-\beta}+z_{\alpha})^2*p_1*(1-p_1)/d^2$$

$$\alpha=0.05, 1-\beta=0.8, P=0.5, d=0.06$$

To reduce the error, we increased the completed questionnaire to 575.

Research Instrument

Given the lack of a standard questionnaire to meet the objectives of this study, a questionnaire was designed and used as a tool for measuring and collection of data after reviewing the items of several

questionnaires, the reliability and validity of which were measured in other communities. For measuring the knowledge of the personnel about transmission routes, 9 true-false questions were asked. The range of total score was 9 to 18. According to the data distribution, scores were divided into three categories.

A cut off point less than 25.6 was considered as low, 25.6-40.2 moderate and 40.2-55 as high level of knowledge. To evaluate stigma and discrimination, 12 items (four-choice question) were asked. The range of total score was 12 to 48, so that scores of 12-22.6, 22.6-33.26 and 33.26-44 were labeled as low, moderate and high, respectively. In the other section of the questionnaire, there were 5 items for stigmatized attitude of the society from the viewpoint of the participants, and 13 items for religious and spiritual beliefs, all assessed using 5-point Likert scale. The range of total score of religious beliefs of the participants was 11 to 55.

Preference of health care providers to provide services was evaluated in three patient groups of injectors, prostitutes, and homosexuals, each measured on a Likert scale, the reason for preference to provide services was evaluated in each group in terms of four causes. In addition, the employees' behavior with patients and the information resources about AIDS were also questioned. To ensure the validity of the selected items, the viewpoints of experts and specialists were asked and after localization, the items were pretested on 60 subjects of the population. Then Cronbach's alpha was used to measure the reliability of the items. The amount of alpha was 0.74, 0.87, 0.50, and 0.77 for the scales of personal stigmatized attitude, social stigmatized attitude, knowledge, and the level of spiritual beliefs, respectively, which were acceptable given the sample size in pretest. As a check on face validity, the surveyed items are sent to experts to obtain suggestions for modification. There was an attempt to select items that are based on common sense, are persuasive and seem right to the readers.

Data Analysis

The data were analyzed using Statistical

Package for the Social Sciences, version 21, and the results were described through descriptive statistics such as frequency distribution tables, comparison of the means to determine the relationships, and multiple regression test with correlation coefficient at the level of 0.05. This study was approved by the ethics committee of Shiraz University of Medical Sciences (approved number: 92-01-59-6600).

RESULTS

The mean age of the participants was 32.9 ± 8.27 years; 71.7% of them were female, 28.3% male; 41% were single, 57.4% married, and 1.4% divorced or widowed. Also, 7.8% had diploma, 18.3% associate degree, 57.5% bachelor, 8.8% master, and 7.6% doctorate or higher. 1.8% of them were general practitioner and specialists, 31.9% nurses, 12.3% health workers, 23.8% laboratory technicians and experts, 5% midwives, 3.6% aestheticians and operating room nurses, and 15.3% of other occupational groups engaged in delivery of services. Of the total respondents, 44.85% were working in private hospitals and 55.15% in government hospitals.

Completing questionnaires continued to reach the desired sample size. So, response rate in the study was 100%. Regarding the sources of information about AIDS, the majority of respondents had used more than one source; 54% have mentioned mass media, 65.6% textbooks, 27.3% non-academic books, and 33.9% training as their source of information.

The level of knowledge is moderate in the majority of personnel (69.9%). Although the prevalence of stigmatized attitude was moderate in the majority of respondents (53.2%), all personnel had stigmatized attitude (Table 1).

The respondents who had an experience of

PLWHA were asked to express their behavior; only 45.5% stated that their attitude was normal with patients, while other respondents had a discriminatory feeling; 42.42% of the subjects had a state of fear, 16.45% refused reception, 15.42% disgusted them, and 8.74% experienced anger. The most dominant attitude of the health care providers toward HIV/AIDS patients was dealing with fear.

The results in Table 2 show that 35.9% of the personnel disagreed with providing services to the HIV/AIDS patients infected through injection. Almost half of the respondents were willing to provide services and the other half were opposed to provide services to this group of patients. 70.5% of the respondents mentioned that their unwillingness to provide services was due to exposure to the disease, followed by the patients' engagement in unethical behavior (65.6%) was the reason. 39.6% and 46.2% of the respondents preferred not to provide services to the prostitutes and homosexual patients, respectively, and the majority of the subjects stated that prostitutes and homosexuals are involved in immoral behavior (83.1% and 84.2%, respectively) (Table 2).

According to Table 3, as a result of regression test, a significant relationship existed between stigmatized attitude of the personnel and willingness to provide services to the prostitute, drug injector, and homosexual patients ($P < 0.05$). Increased stigmatized attitude of the personnel is associated with increased unwillingness to provide services to the patients. Among the three target groups, stigmatized attitude toward the prostitute patients explained 41% of the variations of unwillingness to provide health services. With a slight difference, the explanation was 39.1% and 38.1% in drug injectors and homosexuals, respectively (Table 3).

According to Table 4, there was a significant

Table 1: Stigmatized attitude and knowledge of the personnel

Level	Knowledge of transmission routes (%)	Stigmatized attitude (%)
Low	7.1	20.2
Moderate	69.9	53.4
High	23.0	26.5

Table 2: The frequency distribution of the personnel’s responses to the preference of service delivery in separate groups of patients

Group	Prefer not to provide services	Percent	Reason of unwillingness to provide health services	Percent agreement
Drug injectors	Strongly agree	28.3	They put me at risk of disease	70.5
	Agree	24.1	They have engaged in unethical behavior	65.5
	Disagree	35.9*	I have not trained to work with this group	63.9
	Strongly disagree	11.7	I worry that people attribute me to this group	36.2
Prostitutes	Strongly agree	39.6*	They put me at risk of disease	68.5
	Agree	19.9	They have engaged in unethical behavior	83.1
	Disagree	27.4	I have not trained to work with this group	70.7
	Strongly disagree	13.1	I worry that people attribute me to this group	54.6
Homosexuals	Strongly agree	46.2*	They put me at risk of disease	67.1
	Agree	17.8	They have engaged in unethical behavior	84.2
	Disagree	24.2	I have not trained to work with this group	76.6
	Strongly disagree	11.9	I worry that people attribute me to this group	54.6

* Represents the highest percent

Table 3: Stigmatized attitude of the personnel and their unwillingness to provide health services to the patients

Service target group	R	R ²	Beta	P value
Injectors	0.391	0.153	0.391	0.0001
Prostitutes	0.410	0.168	0.410	0.0001
Homosexuals	0.381	0.145	0.381	0.0001

relationship between stigmatized attitude of the health care providers and their religious beliefs, society stigmatized attitude, and knowledge of transmission routes. Increased religious belief is associated with increased level of stigmatized attitude. Knowledge of transmission routes is inversely related to the level of stigmatized attitude and it is expected that the individual’s stigmatized attitude decreases with increased knowledge of transmission routes ($P<0.05$) (Table 4).

DISCUSSION

The present study aimed at assessing the prevalence of stigmatized attitude and discrimination in healthcare providers toward

PLWHA. The results obtained from the analysis of the questionnaires completed by 575 participants from public and private hospitals and medical centers in Shiraz showed that all personnel had a degree of stigmatized attitude toward AIDS patients. The level of stigmatized attitude was low to moderate in the majority of the respondents, and more than two-thirds of the personnel had a moderate level of knowledge about AIDS. The results of similar studies in Bangladesh and Iran also indicated that there was a moderate level of knowledge among hospital personnel.^{17,18} However, universality of stigmatized attitude among the study sample necessitates effective notifications about patients with HIV and the rout of infection.

The findings did not show a significant

Table 4: The relationship between religion, knowledge, and stigmatized attitude of the society and stigmatized attitude of health service providers

Dummy variable	R	R ²	Adjusted R ²	T	Beta	P value
Religious beliefs	0.324	0.105	0.103	7.188	0.324	0.0001
Social stigmatized attitude	0.571	0.326	0.325	15.049	0.571	0.0001
Knowledge about transmission routes	0.118	0.014	0.012	-2.552	-0.118	0.011
General knowledge measure	0.146	0.021	0.019	3.161	0.146	0.002

difference between the personnel working in public and private hospitals in terms of stigmatized attitude and, revealing that this viewpoint existed in health care providers in all hospitals. The results of stigmatized attitude scale showed that all service providers had a stigmatized attitude along with discrimination. Among the personnel who had an experience to deal with people with HIV/AIDS during their delivery of service, 45.5% had a normal behavior with PLWHA, while others had demonstrated states of discriminatory reactions or stigmatized attitude, i.e. States such as fear, anger, disgust, and refusal to accept. Meanwhile, dealing with fear was the most dominant state that health care providers had in contact with patients with HIV/AIDS. Previous findings also confirm the fact that high levels of irrational fear of HIV and AIDS is a related factor in high levels of stigmatized attitude among employees.¹⁸

Based on the stigmatized attitude scale, it seems that the vision of the respondents about their behavior was slightly away from the level of their stigmatized attitude. This difference between the mind and action is probably due to the responsibility of the personnel to provide health services to the patients, despite the stigmatized attitude associated with discrimination in some of them.

Stigmatized attitude of the health professionals as one of the key personnel in dealing with PLWHA may result in undesirable consequences, such as dealing with fear, disgust, anger, and in some cases refusal to accept the patients. Such discriminatory treatment and inequality of personnel dealing with people with HIV versus other patients can affect the service delivered by the personnel and may deprive the patients from their minimum health rights. This can be an important incentive for people to hide their disease.^{9,16} Therefore, decreasing the personnel's irrational fear is important to reduce their stigmatized attitude. Perhaps this will improve the quality of services provided to patients on the one hand and their mental health on the other hand.

The willingness of health personnel of hospitals to provide health services to the patients was assessed in this study. About a third of the personnel disagreed with service delivery to HIV/AIDS patients infected through injection. In a general overview, almost half of the respondents tended to deliver services and the other half were opposed to provide services to these people. Most of the respondents stated that the reason for unwillingness to provide services was exposure to the disease and involvement of these patients in unethical behavior. A majority of the respondents preferred not to provide health services to prostitutes and homosexual patients and the majority of them stated it is due to their involvement in unethical behavior. This emphasizes the stigmatized attitude of the respondents, and perhaps the willingness to provide services to prostitutes and homosexuals was lower than that of injectors. Comparison of the causes of unethical behavior indicated that prostitutes and homosexual patients are the reasons for reluctance of the personnel to provide health services. So, in the religious context of Iran, the transmission routes of HIV explained the majority of the variations of unwillingness to provide health services. Other factors that may affect the variance can be fear of infection, fear of being attributed to this group and engagement in unethical behavior. All these factors indicate stigmatized attitudes toward patients with HIV infection.

The results of the study by Abler et al. are not in the same line with the findings of this study indicating that high risk behaviors of the patients are associated with higher stigmatized attitude.²⁷ The study of Behravan et al. also confirms this fact that the tag of AIDS is associated with high risk behaviors such as promiscuity in sexual and moral affairs, homosexuality, and drug abuse.²⁸

The results of univariate regression analysis showed a relationship between stigmatized attitude of health care providers and providing services to patients. Previous studies have also confirmed the fact that AIDS-related

stigma serves as an obstacle against provision of services, and that stigmatized attitude leads to a reduction in targeted interventions among health professionals.^{13,29}

Univariate regression also indicated the relationship of health care providers' stigmatized attitude with their religious beliefs, stigmatized attitude of the society, and knowledge about the transmission routes. Increased religious belief is associated with increased level of stigmatized attitude. Direct relationship between religious beliefs and the personnel stigmatized attitude seems logical and it is likely due to more prominent role of guilt and knowing the people involved in immoral behavior. Stigmatized view of the society is directly related to stigmatized attitude. In other words, increased stigmatized attitude of the society is associated with increased stigmatized attitude of the personnel. Knowledge of transmission routes is inversely related to the level of stigmatized attitude and it is expected that increased knowledge of transmission routes can result in reduced stigmatized attitude of the person. The direct relationship between general knowledge measures and stigmatized attitude is also noteworthy. It shows that only knowledge of transmission routes has a significant role in reducing stigmatized attitude.

The limitations of this study were the problem of completing the questionnaire due to the sensitive nature of the job of the studied groups and lack of their time, as well as the difficulty of cooperation of the health providers with higher education levels

CONCLUSION

Given the prevalence of fear as the most common behavior of the personnel in dealing with the patients, increased knowledge can be an effective step in reducing stigmatized attitude toward patients. This not only reduces inappropriate fear of dealing with patients, but also decreases HIV-associated stigmatized attitude. Modified attitude toward AIDS patients can lead to improved health services

to them. Given the dominant role of religion in countries like Iran, stigmatized attitude toward AIDS is associated with unethical behaviors. Thus, the role of the clergymen in eliminating AIDS taboo may be very impressive.

Taboo of the disease and the unequal social behavior with the patients not only do not solve the problem, but may result in patients' isolation and their deprivation from their minimum rights of treatment.

ACKNOWLEDGMENT

The authors give their gratitude to the Research Deputy of Shiraz University of Medical Sciences regarding their financial support, and to the officials and personnel of public and private hospitals due to their cooperation in this project.

Conflict of Interest: None declared.

REFERENCES

- 1 Nyblade LC. Measuring HIV stigma: existing knowledge and gaps. *Psychol Health Med.* 2006;11:335-45.
- 2 UNAIDS. HIV and AIDS-related stigmatization, discrimination and denial: forms, contexts and determinations, Research studies from Uganda and India. Geneva: UNAIDS; 2000.
- 3 Alonzo A , Reynolds NR. Stigma HIV and AIDS: an Exploration and Elaboration of an Stigma Trajectory. *Social Science & Medicine.* 1995;41:303-15.
- 4 Buseh AG, Park C, Stevens PE, et al. HIV/AIDS Stigmatizing Attitudes among Young People in Swaziland: Individual and Environmental Factors. *Journal of HIV/AIDS Prevention in Children and Youth.* 2006;17:97-120.
- 5 Ghazitabatabaei M, Bavlak D, Vedadhir A. Constructing a Socio-Demographic Problem: Towards a Critical Demography of HIV/AIDS In Iran. *Journal of Population Association of Iran.* 2006;20:137-70. [In Persian]
- 6 UNAIDS. Global AIDS response progress

- reporting 2015. Geneva: UNAIDS; 2015.
- 7 Campbell C, Nair Y, Maimane S, Sibiya Z. Supporting people with AIDS and Their cares in rural south Africa: possibilities and challenges. *Health & place*. 2008;14:507-18.
 - 8 Ahsan Ullah AK. HIV/AIDS-Related Stigma and Discrimination: A Study of Health Care Providers in Bangladesh. *The International Association of Physicians in AIDS Care*. 2011;10:97-104.
 - 9 Pulerwitz J, Michaelis AP, Lippman SA, et al. HIV-related stigma, service utilization, and status disclosure among truck drivers crossing the Southern borders in Brazil. *AIDS Care*. 2008;20:764-70.
 - 10 Rao D, Kekwaletswe TC, Hosek S, et al. Stigma and social barriers to medication adherence with urban youth living with HIV. *AIDS Care*. 2007;19:28-33.
 - 11 Rao D, Feldman BJ, Fredericksen RJ, et al. A structural equation model of HIV-related stigma, depressive symptoms, and medication adherence. *AIDS Behav*. 2012;16:711-6.
 - 12 Bogart LM, Chetty S, Giddy J, et al. Barriers to care among people living with HIV in South Africa: Contrasts between patient and healthcare provider perspectives. *AIDS Care*. 2013;25:843-53.
 - 13 Wayne T, Bharat SS, Ramakrishna J, et al. Stigma Is Associated with Delays in Seeking Care among HIV-Infected People in India. *Journal of the International Association of Providers of AIDS Care*. 2013;12:103-9.
 - 14 Feyissa GT, Abebe L, Girma E, Woldie M. Validation of an HIV-related stigma scale among health care providers in a resource-poor Ethiopian setting. *Journal of Multidisciplinary Healthcare*. 2012;5:97-113.
 - 15 Charles B, Jeyaseelan L, Pandian AK, et al. Association between stigma, depression and quality of life of people living with HIV/AIDS (PLHA) in South India—a community based cross sectional study. *BMC Public Health*. 2012;12:463.
 - 16 Jin H, Hampton AJ, Yu X, et al. Depression and Suicidality in HIV/AIDS in China . *Journal of Affective Disorder*. 2006;94:269-7.
 - 17 Hossain MB, Kippax S. HIV-Related Discriminatory Attitudes of Healthcare Workers in Bangladesh. *J Health Popul Nutr*. 2010;28:199-207.
 - 18 Kazerooni PA, Heidari AR, Amini Lari M. Knowledge and Attitude of Nurses and Health Care Workers about AIDS in Shiraz-South of Iran. *Scientific Journal of Hamadan Nursing & Midwifery Faculty*. 2008;18:28-38. [In Persian]
 - 19 Li L, Zunyou W, Sheng W, et al. HIV-Related Stigma in Health Care Settings: A survey of Service Providers in China. *AIDS Patient Care STDS*. 2007;21:753-62.
 - 20 Nyblade L, Stangl A, Weiss E , Ashburn K. Combating HIV stigma in health care settings: what works? *Journal of the International AIDS Society*. 2009;12:15.
 - 21 Kocić B, Petrović B, Bogdanović D, et al. Professional Risk, Knowledge, Attitudes and Practice of Health Care Personnel in Serbia with Regard to HIV and AIDS. *Cent Eur J Public Health*. 2008;16:134-7.
 - 22 Cianelli R, Ferrer L, Norr KF, et al. Stigma Related to HIV among Community Health Workers in Chile. *Stigma Res Action*. 2011;1:3-10.
 - 23 Massoudi M, Farhadi A. Family social support rate of HIV positive individuals in Khorramabad. *Med J Lorestan Univ Med Sci*. 2006;7:9-10. [In Persian]
 - 24 Parker R, Aggleton P. HIV and AIDS-related stigma and discrimination: a conceptual framework and implications for action. *Soc Sci Med*. 2003;57:13-24.
 - 25 Aggleton P, Parker R. HIV/AIDS stigma and discrimination: a conceptual framework and basis for actions: A conceptual framework and basis for action. Washington, DC: United States Agency for International Development; 2002.
 - 26 Hasan MT, Nath SR, Khan NS, et al. Internalized HIV/ AIDS-related Stigma

- in a Sample of HIV-positive People in Bangladesh. *J Health Popul Nutr.* 2012;30:22-30.
- 27 Abler L, Henderson G, Wang X, et al. Affected by HIV stigma: Interpreting results from a population survey of an urban center in Guangxi, China. *AIDS Behav.* 2014;18:192-201.
- 28 Behravan H, Noghani M, Abachi A. The stigmatization of HIV/ AIDS and its consequences. *Iranian Journal of Sociology.* 2011;12:143-66. [In Persian]
- 29 Ekstrand ML, Ramakrishna J, Bharat S, Heylen E. Prevalence and drivers of HIV stigma among health providers in urban India: implications for interventions. *J Int AIDS Soc.* 2013;16:18717.