# Iranian Female Methadone Patients and the Perceived Educational Needs Related to Human Immunodeficiency Virus

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## Abstract

**Original Article** 

**Background:** Iranian female methadone patients are at risk of human immunodeficiency virus (HIV) due to involvement in high-risk sexual behaviours and/or needle sharing. The present study aimed to explore the perceived educational needs related to HIV among a group of Iranian female methadone patients.

**Methods:** The research design was qualitative and the participants were sampled purposively. Semi-structured interviews were conducted with 34 women and 19 clinicians in Sari, Mashhad, and Tehran, Iran. Then, qualitative content analysis was implemented.

**Findings:** The emergence of three major themes and six minor themes was revealed. Women expressed a need to increase their knowledge including women-specific pathophysiology and disease progression and the modes of the virus transmission and prevention. Women also expressed a need to enhance their knowledge and skills related to the physical management of the virus including self-care and reproductive health. Other themes included perceived psychosocial needs including removing stigma and access to resources in the community.

**Conclusion:** Women reported a wide range of educational needs from basic knowledge to advanced skills. The findings can be used in designing women-specific educational programs related to HIV in Iran. Larger studies are suggested with gender-mixed samples in the Persian context.

Keywords: Drugs; Harm reduction; Human immunodeficiency virus; Iran; Treatment; Women

**Citation:** Zarghami M, Bagheri M, Bahari H, Tufani K, Mahjoub A, Daneshmand R, et al. **Iranian Female Methadone Patients and the Perceived Educational Needs Related to Human Immunodeficiency Virus.** Addict Health 2018; 10(4): 242-9.

**Received:** 11.06.2018

Accepted: 06.08.2018

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# Introduction

As the most populous Persian Gulf country, the prevalence of human immunodeficiency virus (HIV) remains a health concern in Iran.<sup>1</sup> Iranian women constitute a considerable proportion of this highly vulnerable population.<sup>1</sup> The main reasons for this problem include involvement in high-risk sexual behaviours<sup>2,3</sup> and needle sharing.<sup>4</sup> A survey indicated that a few Iranian female sex workers reported condom use, and most of them reported drug dependence.<sup>5</sup>

Like many other countries, there is a considerable gap in women's HIV knowledge in Iran.<sup>6,7</sup> A study explored the barriers that Iranian drug-dependent women reported in accessing to HIV treatment services. Stigma, poor HIV knowledge, and misconceptions about the quality of the delivered HIV services were commonly found among women.<sup>7</sup> The provision of the HIV education is subjected to difficulty for women in the community due to stigma on sex work and illicit drug use.<sup>8</sup> However, methadone treatment services remain the most available centers to access for Iranian women and provide the HIV education.<sup>2</sup>

The HIV educational needs refer to the extent to which a woman can find, process, and understand health-related information and the services essential to make health decisions.<sup>9</sup> Identifying the HIV educational needs of women remains important in increasing knowledge, but numerous skills are essential to apply health knowledge.<sup>10</sup>

To date, few studies have involved women in describing their own HIV educational needs. A study in Africa indicated that women reported a need to increase their HIV knowledge. These included basic HIV knowledge, psychosocial skills, modes of HIV transmission, the effects of HIV on health, and methods of protecting others from HIV. Other needs included using antiretroviral drugs and self-care.<sup>11</sup>

Despite the important role of Iranian women in addressing the HIV problem, this population has not been involved in developing their HIV educational programs. The present research is the first study in Iran that explored the HIV educational needs of a group of Iranian female methadone patients in order to contribute to improving women-specific programs for the HIV education in methadone treatment services in Iran.

# Methods

The study followed the consolidated criteria for reporting qualitative research (COREQ) which is a 32-item checklist for interviews and focus groups.<sup>12</sup>

**Research team and reflexivity:** Personal characteristics: Five authors contributed to conducting the interviews and focus group discussions. One of them had a doctoral degree in psychology while the others were psychiatrists and general practitioners. Three interviewers were men and two interviewers were women. Interviewers reported at least five years of clinical practice in methadone treatment and working with drug-dependent and/or HIV-infected women. Interviewers were trained prior to study commencement.

*Relationship with participants:* No relationship was established between participants and interviewers prior to study commencement. Interviewers clarified their identity, employment, experience, and training in methadone treatment for participants at the time of interviews. Each participant was informed about the study aim and procedures prior to study commencement.

*Study design:* Theoretical framework: A qualitative method was selected to have an in-depth understanding of the HIV educational needs of the participants.

Participant selection and study settings: Purposive sampling was used which involves selecting participants who have definite characteristics and provides rich data related to the study aim.<sup>13</sup> Participants were approached by the site managers and no participant refused to participate in the study.

The study sites included 11 methadone treatment clinics and drop-in-centers in three large cities of Iran including Tehran, Mashhad, and Sari. The study was conducted from 5 June to 28 July 2018. Consent forms were signed by participants. Prior to study commencement, participants were informed that the participation was voluntary and confidential. Participants were reimbursed with small gifts for participation and time. No money was reimbursed due to likelihood of purchasing illicit drugs. The study was approved and funded by the Ethics Committee of Mazandaran University of Medical

Sciences, Sari, Iran (ethics number: 2856).

Data collection: A pilot-tested interview guide was developed to facilitate the study. The questions and prompts used in the guide were related to the HIV educational needs. There were 34 women who were interviewed and each individual interview took between 45 and 60 minutes. In-depth and semi-structured interviews were conducted to explore the experiences of participants. Interviewers encouraged participants to talk about issues pertinent to the study by asking open-ended questions. In-depth interviews were used to explore personal and sensitive themes. Audio-recording was implemented for each interview. No interview was repeated and interviewing was continued until there were no new findings in the last five interviews. Therefore, data saturation was met in that way. There were 19 clinicians in focus groups including 11 psychologists, 4 medical doctors, 2 nurses, 1 psychiatrist, and 1 social worker. Overall, 13 clinicians were women and 6 clinicians were men. The clinicians worked at methadone and HIV treatment centers. Focus groups constituted semi-structured discussions with 4-6 clinicians. Four focus group discussions were held. Three moderators commenced the focus groups by asking broad questions before asking the focal questions. Participants were encouraged to talk and interact with each other. Focus groups were used to explore views on issues related to the HIV educational needs of Iranian female methadone patients. Each focus group discussion took 45 minutes and was audio-recorded. Field notes were implemented during the interviews and focus groups. Transcripts were returned to participants for comments following the completion of each interview and focus group discussion.

Two data coders coded the data and used NVivo software (version 9) to manage the data. Both major and minor themes were derived from the data and participant quotations were used to illustrate the themes. This method was used to facilitate storage, searching, and coding of the collected data. Following that, participants provided feedback on the findings which were consistent with the data analyses. Obtaining feedback from participants on the research findings adds validity to the researcher's interpretations by ensuring that the participants' own perspectives are reported.<sup>13</sup>

# Results

Baseline characteristics: The findings reflected the baseline characteristics of 34 women ranging from 21 to 56 years of age (median age: 37 years). The mean year of schooling was 7 years (range: 3-16 years). 17 and 14 participants were jobless and housewives, respectively, while 3 participants were employed. The duration of self-reported drug dependence was almost 11 years (range: 2-30 years). Overall, 24 women reported living in rented apartments while 5 participants were homeless at the time of intake. Only 2 participants had their own houses and 2 participants lived in their fathers' houses. 4 women reported life-time drug injection and 3 women reported being infected with HIV. Average years of being in methadone treatment included two years and two months.

*Major and minor themes:* The study major and minor themes have been reported as they emerged in interpreting the data (Table 1). Each minor theme represents specific aspects that were necessary for women to understand this issue. Supporting participant quotations have been presented to illustrate the findings.

Major theme 1; The HIV knowledge: The first major theme was related to increasing the basic HIV knowledge and formed the departure point for health literacy related to HIV among women. Minor theme; Women-specific pathophysiology and disease progression: Participants discussed the

Table 1. Major and minor themes as emerged in the narratives

Major themes	Minor themes
The HIV knowledge	Women-specific pathophysiology and disease progression
	Modes of HIV transmission and prevention
Knowledge and skills related to the physical	Self-care
management of HIV	Reproductive health
The perceived psychosocial needs	Removing HIV stigma
	Access to resources in the community

HIV: Human immunodeficiency virus

need to explain women-specific pathophysiology and disease progression in order to help women understand the nature of HIV. Women needed to know how medically HIV and acquired immune deficiency syndrome (AIDS) are different. The general consensus was to make short-term cartoon animations about the pathophysiology and disease progression in order to enhance women's HIV understanding. Such an animation needed to have a specific focus on female genital areas and relevant infections.

A male doctor who had eight years of experience in methadone treatment stated:

"...Women need to know how HIV virus progresses and acts in the body of a woman and becomes a health problem like AIDS. I think making 15-20-minute cartoon animations with soft music can help. A woman should speak about the disease progression during cartoon animations..."

Minor theme; Modes of HIV transmission and prevention: Further analyses of the data indicated that women needed to know about the modes of HIV transmission to understand which actions put them and others at risk of infection. This knowledge included a wide range of items such contaminated razors and syringes, as contaminated dental tools, blood contact, tattooing, sex work, and unprotected sex with HIV-infected partners. Women need to know how drug dependence can lead to HIV. Women explained that such knowledge would not only help them protect their families, but also would prevent the transmission of HIV from them to their children.

A 32-year-old woman who was in methadone treatment for two years stated:

"...I think it is necessary to make short documentary movies with participation of drugdependent women who are infected with HIV. Women should tell their stories about how they were infected..."

Major theme 2; Knowledge and skills related to the physical management of HIV: Further analyses of the data indicated that as part of health literacy, women needed to increase their basic knowledge and skills until they can implement the physical management of HIV.

*Minor theme; Self-care:* Multiple topics such as maintaining a healthy lifestyle with regard to safe sex education, safe injection, and condom education

were investigated under this minor theme. Preventing HIV reinfection, basic wound care, and understanding the causes and management of conditions related to HIV were also specified as priorities by both women and the clinicians.

A female clinical psychologist who reported six years of experience in methadone treatment stated:

"...I think documentary movies should be made to teach condom education and using sterile needles and syringes to women. Safe sex education should be part of the program. Women should learn using both female and male condoms..."

Minor theme; Reproductive health: Both women and the clinicians spoke about the importance of reproductive health such as using pap smears, pregnancy prevention options, and pregnancy care for women. Women needed to make decisions about expanding their families or taking the necessary precautions to prevent pregnancy. Also, they needed to insist on reproductive healthcare, specifically if they experienced problems such as vaginal discharge. Apart from aspects regarding the physical management and understanding of HIV, the women and the clinicians also discussed the psychosocial aspects vital to the holistic wellbeing of women and the reproductive health. The following quotations illustrate some opinions on reproductive health, which highlight the importance of education in this area.

A female nurse who had five years of experience in methadone treatment services stated:

"...Women need to learn how unhealthy reproductive methods can lead to HIV. HIVinfected women can be asked to tell their stories about reproductive health to other women..."

A 40-year-old woman who was in methadone treatment for two years stated:

"...Tell stories about how reproductive health can prevent HIV in women such as using pap smears and teach them how they can use these methods..."

*Major theme 3; Psychosocial skills:* The other major theme of health literacy needs comprised two minor themes and addressed a number of aspects that influence health outcomes in female methadone patients. These minor themes built on an understanding of HIV as a disease and required the women to be active.

Minor theme; HIV stigma: Accepting HIV as a

health problem not as a social discrimination and stigma was specified as an important step towards taking responsibility by women. Women discussed the necessity of removing stigma from HIV. Both women and the clinicians discussed that shame in discussing HIV needs to be addressed.

A woman stated:

"... The HIV educational program should focus on removing stigma. Women need to learn that this problem is only a health concern..."

*Minor theme; Access to resources in the community:* Further analyses of the data indicated that it was important for women to have the skills to learn and access to resources in the community. These resources included free HIV treatment services in the community and their contact details.

A female clinical psychologist who had five years of experience in methadone treatment stated:

"...Women should learn about the places that provide free HIV treatment in the community. Methadone treatment staff should provide the address details and telephone numbers of such centers..."

# Discussion

While female methadone patients are at risk of HIV, the implemented HIV education in Iran is not tailored to their specific educational needs.14-18 The present study highlights that developing a women-specific educational program is essential to increase the optimal HIV knowledge among female methadone patients. Women in this study expressed a need to improve their HIV knowledge in order to understand the nature of the disease and increase their health literacy about the relevant pathophysiology. A high level of health literacy among these women may be associated with less involvement in high-risk behaviours and as a result, the lower likelihood of being infected with HIV. This is consistent with a study by Kalichman et al. which supported the necessity of improving the HIV knowledge among people with substance use disorders (SUDs).<sup>19</sup> A study conducted by Enriquez et al. indicated that women reported interest in the changes that the HIV problem would specifically cause in their bodies.<sup>20</sup>

The study findings also indicated that women needed to increase their knowledge and skills related to the physical management of HIV including self-care and reproductive health. Studies indicate that women are vulnerable to HIV for numerous reasons, such as menstruation, pregnancy, and menopause.<sup>21</sup> Self-care and reproductive health have been identified as the HIV educational needs in a similar study.22 The delivery of sufficient counselling is likely to have an important impact on prevention from the disease.23 This issue is particularly important for women living with the HIV educational needs, so that they have access to all services which provide information and support for this population.24-26 It is thus important to increase reproductive health literacy to include contraceptive care, pregnancyrelated issues, infant care, and sexual health.

This study indicated that women were in need of learning psychosocial skills including HIV acceptance by others and access to resources in the community which were likely to lead to better psychological health. Access to resources in the community and removing the HIV stigma also play a vital role in increasing health literacy among women.<sup>27</sup> This issue specifies the development of communication skills as an important aspect in the HIV education. These skills are very likely to encourage women to increase their community awareness of HIV, but more importantly will allow them to state their health literacy needs and enable them to access to the necessary resources.24-27 This issue needs to be specified in developing relevant educational programs for Iranian female methadone patients.

The themes identified in this study provide clinicians with an array of relevant topics for the health education among female methadone patients. Other clinical implication of the study includes the necessity of providing health comprehensive literacy to women, including the development of specific skills such as self-care and psychosocial skills. This study confirms the findings of other similar studies and adds additional evidence for the need to develop health literacy programs for women. The study has several limitations. The current study was limited to female methadone patients in three main cities of Iran. Therefore, the findings may not be generalizable to men. Conducting similar studies on male methadone patients in other parts of Iran is suggested. Drug-dependent women in the community may have different HIV educational needs which deserve further research.

## Conclusion

Women needed a wide range of the HIV/AIDS educational needs from basic knowledge to advanced skills. The findings can be used in designing women-specific programs for the HV/AIDS education in Iran. In the light of women's vital role in making health-related decisions, designing women-specific programs for increasing the HIV literacy is suggested. The

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study is important because it has provided rare information about the HIV educational needs of women in West Asia.

#### **Conflict of Interests**

The Authors have no conflict of interest.

#### Acknowledgements

The authors thank the study participants.

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چکندہ

# زنان ایرانی تحت درمان متادون و نیازهای آموزشی ادراک شده مربوط به HIV

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مقاله پژوهشی

**مقدمه:** زنان ایرانی تحت درمان با متادون به علت درگیری در رفتارهای مخاطرهآمیز جنسی و به اشتراک گذاشتن سوزن، در معرض خطر ابتلا به HIV) Human immunodeficiency viruses (HIV) قرار دارند. پژوهش حاضر با هدف بررسی نیازهای آموزشی درک شده مربوط به HIV گروهی از زنان ایرانی تحت درمان با متادون انجام شد.

**روشها:** این مطالعه از نوع کیفی بود و مشارکتکنندگان به صورت هدفمند مورد بررسی قرار گرفتند. مصاحبههای نیمه ساختار یافته با ۳۴ زن و ۱۹ متخصص بالینی در ساری، مشهد و تهران انجام گرفت و سپس تحلیل محتوای کیفی صورت پذیرفت.

**یافتهها:** سه مفهوم اصلی و شش مفهوم فرعی از یافتهها استخراج گردید. زنان، نیاز به افزایش دانش خود درباره HIV را که شامل آسیبشناسی ویژه نسبت به این ویروس و بیماری و چگونگی پیشرفت آن و راههای انتقال و پیشگیری از ویروس بود، بیان کردند. همچنین، نیاز به افزایش دانش و مهارت خود در رابطه با کنترل جسمی ویروس را گزارش نمودند که شامل مراقبت از خود و سلامت مربوط به باروری بود. از دیگر مفاهیم میتوان به نیازهای درک شده روانی- اجتماعی اشاره کرد که از برداشتن انگ و برچسب اجتماعی از HIV و دسترسی به منابع و خدمات جامعه تشکیل شد.

**نتیجه گیری:** زنان به دامنه گستردهای از نیازهای آموزشی در زمینه HIV از دانش پایه تا مهارتهای پیشرفته نیاز دارند. نتایج به دست آمده میتواند در طراحی برنامههای آموزشی ویژه در زمینه HIV برای زنان به خصوص زنان پرخطر مورد استفاده قرار گیرد. انجام مطالعات گستردهتر با نمونههایی شامل دو جنس در ایران پیشنهاد میگردد.

واژگان کلیدی: کاهش آسیب، ویروس نقص ایمنی انسانی، ایران، درمان، زنان

ارجاع: ضرغامی مهران، باقری مائده، بهاری حامد، طوفانی خاطره، محجوب علیرضا، دانشمند رضا، علممهرجردی زهرا، محمدیان راحله، مساح امید. زنان ایرانی تحت درمان متادون و نیازهای آموزشی ادراک شده مربوط به HIV. مجله اعتیاد و سلامت ۱۳۹۷؛ ۱۰ (۴): ۲۴۹–۲۴۲.

تاریخ دریافت: ۹۷/۳/۲۱

تاریخ پذیرش: ۹۷/۵/۱۵

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