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

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Abstract

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

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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. Iranian women constitute a considerable proportion of this highly vulnerable population. The main reasons for this problem include involvement in high-risk sexual behaviours and needle sharing. A survey indicated that a few Iranian female sex workers reported condom use, and most of them reported drug dependence.

Like many other countries, there is a considerable gap in women’s HIV knowledge in Iran. 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. 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. However, methadone treatment services remain the most available centers to access for Iranian women and provide the HIV education.

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. Identifying the HIV educational needs of women remains important in increasing knowledge, but numerous skills are essential to apply health knowledge.

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.

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.

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. 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.

### 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

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

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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 as contaminated razors and syringes, 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 drug-dependent 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 well-being 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. HIV-infected 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). 19 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. 20

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. 21 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, pregnancy-related 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. 27 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 comprehensive health 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.
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**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 HIV/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 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.

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**References**

1. Yaghoobhi H, Ahmadinia H, Shahabi Z, Vazirinejad R, Safari R, Shahizadeh R, et al. Life expectancy and years of life lost in HIV patients under the care of BandarAbbas Behavioral Disorders Counseling Center. Nepal J Epidemiol 2017; 7(4): 702-12.
2. Zarei E, Khabiri R, Tajyar M, Nosratnejad S. Knowledge of and attitudes toward HIV/AIDS among Iranian women. Epidemiol Health 2018; 40: e2018037.
3. Oskouie F, Kashefi F, Rafii F, Gouya MM. Barriers to self-care in women of reproductive age with HIV/AIDS in Iran: A qualitative study. Pan Afr Med J 2017; 28: 231.
4. Mohammadi E, Moghaddam Banaem L, Vedadhir A, Hajizadeh E. The most common sexual and reproductive health needs in women referred to healthcare and triangle centers of Sari-2013. J Mazand Univ Med Sci 2014; 24(Supple 1): 41-53. [In Persian].
5. Karamouzian M, Mirzazadeh A, Rawat A, Shokoohi M, Haghdooest AA, Sedaghat A, et al. Injection drug use among female sex workers in Iran: Findings from a nationwide bio-behavioural survey. Int J Drug Policy 2017; 44: 86-91.
6. Hedayati-Moghadam MR. Knowledge of and attitudes towards HIV/AIDS in Mashhad, Islamic Republic of Iran. East Mediterr Health J 2008; 14(6): 1321-32.
7. Lotfi R, Ramezani Tehrani F, Yaghmaei F, Hajizadeh E. Barriers to condom use among women at risk of HIV/AIDS: A qualitative study from Iran. BMC Womens Health 2012; 12: 13.
8. Majid T, Farhad Y, Sorour A, Soheila A, Farnaz F, Hojjat Z, et al. Preventing mother-to-child transmission of hiv/aids: Do Iranian pregnant mothers know about it? J Reprod Infertil 2010; 11(1): 53-7.
9. Cunha GH, Galvao MT, Pinheiro PN, Vieira NF. Health literacy for people living with HIV/AIDS: an integrative review. Rev Bras Enferm 2017; 70(1): 180-8.
10. Paasche-Orlow MK, Wolf MS. The causal pathways linking health literacy to health outcomes. Am J Health Behav 2007; 31(Suppl 1): S19-S26.
11. Smith-Greenaway E. Are literacy skills associated with young adults' health in Africa? Evidence from Malawi. Soc Sci Med 2015; 127: 124-33.
12. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. Int J Qual Health Care 2007; 19(6): 349-57.
13. Polit DF, Beck CT. Nursing research: Generating and assessing evidence for nursing practice. Philadelphia, PA: Lippincott Williams & Wilkins; 2012.
14. Samiel M, Moradi A, Noori R, Aryanfard S, Rafiey H, Naranjih A. Persian At-Risk women and barriers to receiving HIV services in drug treatment: First report from Iran. Int J High Risk Behav Addict 2016; 5(2): e27488.
15. Roshanfekr F, Noori R, Dejman M, Fathi GZ, Rafiey H. Drug use and sex work among at-risk women: A qualitative study of initial factors. Iran J Psychiatry Behav Sci 2015; 9(2): e953.
16. Taghizadeh H, Taghizadeh F, Fathi M, Reihani P, Shirdel N, Rezaei SM. Drug use and high-risk sexual behaviors of women at a drop-in center in Mazandaran Province, Iran, 2014. Iran J Psychiatry Behav Sci 2015; 9(2): e1047.
17. Keshhtkar A, Majdzadeh R, Nedjat S, Gholipour M, Badakhshan A, Qorbani M, et al. Characteristics of high-risk sexual behaviors for human immunodeficiency virus infection among Iranian drug abusers. J Addict Med 2012; 6(2): 153-8.
18. Saieieh SE, Nasrabadni AN, Ebadi A, Moghadam ZB, Mohraz M, Jozani ZB, et al. Contraception use among Iranian women with HIV: A Qualitative Study. Glob J Health Sci 2015; 8(1): 199-207.
19. Kalichman SC, Benotsch E, Suarez T, Catz S, Miller J, Rompa D. Health literacy and health-related knowledge among persons living with HIV/AIDS. Am J Prev Med 2000; 18(4): 325-31.
20. Enriquez M, Lackey N, Witt J. Health concerns of mature women living with HIV in the midwestern United States. J Assoc Nurses AIDS Care 2008; 19(1): 37-46.
21. Brittain K, Mellins CA, Remien RH, Phillips T, Zerbe A, Abrams EJ, et al. HIV-status disclosure and depression in the context of unintended pregnancy among South African women. Glob Public Health 2018; 1-11.
22. Price J, Pettifor A, Selin A, Wagner RG, MacPhail C, Agyei Y, et al. The association between perceived household educational support and HIV risk in young women in a rural South African community (HPTN 068): A cross sectional study. PLoS One 2019; 14(1): e0210632.
23. Arnold EA, Kegeles SM, Pollack LM, Neilands TB, Cornwell SM, Stewart WR, et al. A randomized controlled trial to reduce HIV-related risk in African American men who have sex with men and women: The bruthas project. Prev Sci 2019; 20(1): 115-25.
24. Janghorban R, Latifnejad Roudsari R, Taghipour A, Abbasi M. Current status of sexual health and rights indicators in Iran: An overview. Iran Red Crescent Med J 2015; 17(6): e23731.
25. Bagheri AF, Doosti-Irani A, Sedaghat A, Fahimfar N, Mostafavi E. Knowledge, attitude, and practices regarding HIV and TB among homeless people in Tehran, Iran. Int J Health Policy Manag 2017; 7(6): 549-55.
26. Karamouzian M, Foroozanfar Z, Ahmadi A, Haghdoot AA, Vogel J, Zolala F. How sex work becomes an option: Experiences of female sex workers in Kerman, Iran. Cult Health Sex 2016; 18(1): 58-70.
27. Gebregziabher M, Dai L, Vrana-Diaz C, Teklehaımanot A, Sweat M. Gender disparities in receipt of HIV testing results in six sub-saharan African countries. Health Equity 2018; 2(1): 384-94.
چکیده
مقدمه: زنان ایرانی تحت درمان با متادون به عنوان یکی از مبتلایانی به ویروس نقص ایمنی انسانی (HIV) محسوب می‌شود. تنها با افزایش درصد زنان تحت درمان متادون، هر چه از این نوع درمان، به خصوص در زنان درمان پذیری و بیماری‌های مرتبط، بیشترین توجه به آن می‌گردد.

روش‌ها: این مطالعه از نوع کیفی بود و مشارکت کنندگان به صورت هدفمند در سازمان سازمانی و فردی انتخاب و بر اساس سیستم جمع‌آوری داده‌های مربوط به مطالعه و انتخاب زنان تحت درمان متادون انجام شد.

نتایج: گزارش‌های بیماران از لحاظ اجتماعی و منابع مشاهده شدند که بیشترین توجه به زنان تحت درمان متادون را در زمینه‌های اجتماعی و اقتصادی داشته‌اند که این موارد می‌تواند باعث ایجاد اختلافات در درک و تولید گروهی مزین به HIV شود.

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

ارجاع: ضرخمنا دهانه، زنی که در این مطالعه به عنوان اسکیسی بازمانده، مبتلا به ویروس نقص ایمنی و بیماری‌های مربوط به آن می‌باشد. ابتدا، مبتلایانی را که مبتلا به این بیماری می‌باشند، مطالعه نمودند. در نهایت، به دست آمده می‌تواند در طراحی برنامه‌های آموزشی ویژه در زمینه HIV برای زنان به خصوص زنان پرخطر مورد استفاده قرار گیرد. انجام مطالعات گسترده و دسترسی به منابع و خدمات جامع تشكیل شد.

مطالعه پژوهشی

نتیجه‌گیری: زنان به دانمش‌گری‌هایی از نیازهای آموزشی در زمینه HIV از ناحیه یا تهیه‌های بیشتر به ناشر دارند. نتایج به دست آمده می‌تواند در طراحی برنامه‌های آموزشی ویژه در زمینه HIV برای زنان به خصوص زنان پرخطر مورد استفاده قرار گیرد.

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