



Opioid Use among Women on a Stable Methadone Dose

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Abstract

Background: Opioid use on a stable methadone dose is a health concern in Iran, the most populous Persian Gulf country. However, the underlying reasons associated with opioid use have not been studied.

Objectives: The study aimed to explore the reasons associated with opioid use among a group of Persian methadone-maintained women. The other aim was to explore effective interventions to stop this problem.

Methods: The current qualitative study was conducted between June 2008 and December 2009. The study sites included ten large methadone treatment clinics in Tehran. The study employed semi-structured interviews with 50 women. Six roundtable meetings were conducted with nine key informants. NVivo 10 was used to thematically analyze the data.

Results: Women were on a stable methadone dose of 45 - 115 mg for at least six months. Opioid availability, an opioid-dependent lifestyle, peer pressure and self-treatment were the reasons of opioid use. The provision of cognitive-behavioral therapy, life skills, observational learning, and mental health services were the suggested interventions to stop opioid use.

Conclusions: Opioid use on a stable methadone dose had been facilitated by some factors which should be considered in methadone treatment. The suggested interventions should be considered in increasing methadone treatment outcomes.

Keywords: Drug, Harm Reduction, Iran, Methadone

1. Background

Opioid use is a health problem in Iran, a vast Persian country in Western Asia (1, 2). This is because of Afghanistan which smuggles opioids to Iran. It is estimated that two million people are dependent on illicit drugs. Women are almost ten percent of illicit drug users. The mental health survey of Iran (Iran MHS) is a large household study. Overall, 3,366 men and 4,475 women in the general population were interviewed in 2011. The prevalence of 12-month substance use disorders was 2.09% and 2.44% among women and men respectively. Opioids were the main illicit drugs (3).

Illicit drug use especially opioid use demands an effective treatment. Drug treatment centers were established between 1974 and 1977. Over the same time, 30,000 patients were in treatment (4). Illicit drug use was considered as a criminal activity between 1979 and 2000. Therefore, drug treatment was not provided. Since 2000, methadone

clinics have been opened (5). The number of these clinics has increased from 4,275 in 2014 to 5,983 in 2016. The centers provide treatment to more than 750,000 clients (6).

Female drug services have been also established. Five women-only methadone treatment centers were established in five provinces between 2007 and 2008. A survey indicated that 442 women were admitted at the centers by the end of March 2008. Methadone treatment and harm reduction services were the most provided programs. More than 6,000 women were admitted between 2007 and 2014. A survey indicated that 2,100 women were admitted at least once to receive treatment by the end of April 2014 (7). Recently, the number of such centers is 29 (7).

Despite providing methadone treatment, opioid use is a problem among women. This is related to drug-using families and friends who facilitate opioid use among Persian women (8-10). This is a health concern because opioid use reduces methadone treatment outcomes (11-13). There is no study to show the reasons associated with this prob-

lem. Furthermore, it is not clear how this problem can be ceased.

2. Objectives

The study aimed to explore the reasons associated with opioid use among methadone-maintained women. A secondary aim was to explore effective interventions to stop this problem.

3. Materials and Methods

3.1. Design and Settings

The study design was qualitative. The study was conducted between June 2008 and December 2009. Ten methadone clinics in Tehran were the study sites. The centers were selected for the study because they reported high rates of opioid use in the year before conducting the study.

3.2. Participants

All women were eligible to enter the study if they 1) were at least 18 years and 2) reported being on a stable methadone dose for at least six months. This was in compliance with other studies (14, 15). Opioid use was defined as self-reported use for at least once a week in methadone treatment over the last six months. Exclusion criteria included reporting severe drug-related symptoms and/or severe psychiatric problems. Convenience sampling was the method of participant recruitment. Twenty eight women were approached by two research members. Eleven women were recruited through the research advertisements pinned to the notice boards of the clinics. Eleven women were approached by the manager of each clinic. Overall, 50 women were screened and recruited by a registered clinical psychologist who had a long professional experience in working with drug-dependent women.

3.3. Measure

A guide was developed to facilitate the interview procedure. The guide included information on demographics, illicit drug use and treatment history. Part of the guide included open questions about reasons of opioid use in treatment and effective interventions.

3.4. Data Analysis

Interviews were transcribed verbatim. Data analyses were thematic. All data were reviewed for accuracy. Data were imported into NVivo 10 for management and coding. Data were coded by two research team members (O.M and S.S), who met regularly with the interview team (Z. AM and A.M) to discuss emerging themes and revise the coding.

3.5. Quality Control

Data triangulation is part of validating qualitative research (16). Triangulation refers to the use of more than one method in conducting a qualitative study (17). More than one researcher was recruited to collect and interpret data. Different methods of sample taking were used for data triangulation. The research team used prolonged exposure in the sites, and member checks for methodological triangulation.

3.6. Ethical Issues

The study was approved by Tehran University of Medical Sciences. Participation was confidential and voluntary. Consent form was obtained.

4. Study Procedure

After the purpose of the study was explained, semi-structured and face-to-face interviews were individually conducted in private rooms at the sites. Interviews were conducted by the first and fifth authors (Z. AM and A. M). Each interview took 65 - 90 minutes and was audio-taped. Women received small gifts for study participation.

Six roundtable meetings were conducted with nine professional key informants (KIs). KIs included two female clinical psychologists, two female managers from two methadone clinics, two male doctors, one female social worker, and two female nurses. Each meeting was facilitated by two researchers (A.F and S.S) and took 50 - 60 minutes and was audio-taped. Individual interviews and roundtable meetings continued until no new theme emerged in four consecutive interviews. This was done to assure data saturation (16, 17).

5. Results

5.1. Baseline Characteristics

The mean age of the women was 36 (SD=11) years. More than half of the women were currently unmarried. Most of them reported less than eight years of schooling and were jobless (n = 21) (see Table 1).

All of the women were users of opioids. Almost half of the women (n = 26) reported at least eight days of opioid use in treatment. The remaining women (n = 24) reported opioid use in a range of 9 - 20 days (medium number = 13 days). The length of the treatment ranged between 9 and 42 months. Women were on a stable methadone dose of 45 - 115 mg for at least six months. The medium methadone dose was 76 mg.

Table 1. Women' Baseline Demographics (n = 50)

Characteristics	Number
Age range, year	18 - 60
Mean age, year	36 (SD 11)
Socio-economic status	
High	15
Middle	23
Low	12
Marital status	
Currently married	23
Currently unmarried	27
Schooling	
< 8 years	40
> 8 years	10
Employment	
Jobless	21
Housewife	20
Employed	6
Student	3

5.2. Reasons and Interventions

The reasons associated with opioid use on a stable methadone dose and effective interventions to cease this problem have been reported below.

5.2.1. Opioid Availability

A theme that repeatedly emerged from the narratives was the availability of inexpensive and impure opioids especially among women's families, relatives, neighbors or drug dealers. More than two thirds of the women did not enjoy opioid use because they took methadone. However, opioid availability was the problem.

A 30-year old woman reported:

'... I can't stop smoking heroin because I see it in neighborhood. When I take methadone, I experience no heroin craving. I don't enjoy but heroin users don't leave me alone...'

5.2.2. Cognitive-Behavioral Therapy

A theme that repeatedly emerged from the narratives confirmed that women had no adequate cognitive and behavioral skills to cope with opioid availability. Most women and KIs demonstrated how cognitive-behavioral therapy (CBT) was needed to reduce the impacts of opioid availability.

A doctor reported:

'Methadone is stronger than heroin and opium...We should hold weekly sessions of CBT to teach relapse prevention techniques...'

5.2.3. An Opioid-Dependent Lifestyle

A theme that gradually emerged from the narratives was an opioid-dependent lifestyle. Interviewees explained how long years of opioid use encouraged the women to ignore the side effects of opioid use. This issue was misleading because women thought that they were capable of opioid use in methadone treatment.

A 39 year-old woman reported:

'... I've smoked opium and impure heroin for more than 15 years...Methadone stops my craving but what should I do with my addicted lifestyle?... I need training to stop it'

5.2.4. Life Skills

Although, an adequate methadone dose was prescribed, an opioid-dependent life style was the main problem. However, teaching life skills was frequently suggested by women and KIs to reduce the impact of an opioid-dependent lifestyle.

A psychologist reported:

'Methadone treatment stops craving for opioid use but women cannot easily forget their former lifestyles. Teaching life skills in small groups is needed to change their lifestyles...'

5.2.5. Peer Pressure

Half of the interviewees described how women's friends facilitated opioid use in methadone treatment. Women frequently experienced that they were not able to refuse opioid use on a stable methadone dose. Women and KIs explained that opioid-using friends offered opioids to show intimacy and friendship.

A 42-year old woman reported:

'... My boy friends buy heroin for me to show friendship and love. Heroin smoking isn't enjoyable but I don't like to lose my friends. I should learn how to stop...'

5.2.6. Observational Learning

KIs frequently demonstrated how simple observational learning was needed to remind women about the consequences of accepting peer pressure. Showing documentary movies about the side effects of opioid use and setting up colorful photos of women with lost beauty were suggested to stop the impact of peer pressure.

A social worker reported:

'... We should show documentary movies about the side effects of opioid use especially on physical beauty,

bones, teeth and skin...Methadone clinics should set up photos of opioid-using women with lost beauty...'

5.2.7. Self-Treatment

A theme that repeatedly emerged from the narratives indicated that women had poor mental health. Almost half of the women reported lifetime inpatient psychiatric hospitalizations, surgical operations and car accidents. Such physical problems exacerbated psychiatric problems. Women and KIs demonstrated that how psychiatric comorbidities encouraged self-treatment with opioid use.

A 41-year woman reported:

'... I feel depressed. I had several surgical operations so my feet are painful. I smoke opium to forget these problems...'

5.2.8. Mental Health Services

The provision of mental health services was suggested by women and KIs to cease self-treatment with opioid use in methadone treatment. Interviewees demonstrated that mental health services could provide an opportunity to reduce mental health problems.

A clinic manager reported:

'...Some women have no any definite plan for future. They use heroin or opium to cope with mental health problems... Professional mental health services are necessary...'

6. Discussion

Methadone treatment can be impacted by opioid use (18). The study results indicated that opioid availability facilitated its use in methadone treatment. Drug availability in social settings is a main reason for illicit drug use (19). However, providing CBT was suggested to empower women against opioid availability. While opioid availability is not necessarily associated with opioid use, women who experience opioid availability may express distress in craving management. Therefore, learning CBT skills to manage craving can be effective to cope with opioid availability (20, 21).

An opioid-dependent life style facilitated opioid use in treatment. This was likely to prevent women from considering opioid use as a health problem. A study indicated that a drug-dependent lifestyle was a motivation for women to continue drug use (8, 9). This problem is unlikely to be fully ceased with methadone. Teaching life skills was a suggested intervention to cease opioid use. Such trainings may assist women in developing skills associated with behavioral changes.

Peer pressure was another factor associated with opioid use. This problem was likely to be related to the lack

of learning assertive skills to reject opioid users. A study indicated that male peers offered and provided heroin to their female counterparts to show friendship and intimacy (22). Simple observational learning was a suggested strategy to reduce peer pressure. Most of the women were not educated. They were likely to experience poor learning because of opioid dependence. Therefore, simple observational learning might be an intervention to cease opioid use.

Self-treatment was a reason for opioid use. Women were likely to ignore the side effects of co-current use of opioids and methadone. Studies indicate that opioids are used to self-treat mental health problems by women (23, 24). However, providing mental health services can be helpful (21). Methadone treatment services should consider the simultaneous provision of mental health services.

The current study has several limitations. The study was limited to a group of opioid-using women in methadone treatment. Therefore, the study findings may not be generalizable to opioid-using men and women in the community. The study had a focus on opioid use among methadone-maintained women. This may be different from opioid use among male methadone clients who are not on a stable methadone dose. Further studies are suggested.

7. Conclusion

Methadone treatment should be monitored by identifying and managing those factors which can have negative impacts on women. This should be accompanied with reinforcing those factors which can increase positive treatment outcomes. External and internal factors facilitated opioid use on a stable methadone dose. However, some interventions were suggested to cease this problem. Such interventions were self-perceived. Further studies are suggested.

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Footnotes

Authors' Contributions: Omid Massah and Ali Farhoudian designed the study. Zahra Alammehrjerdi and Afsaneh Moradi conducted the interviews and collected data. Omid Massah, Zahra Alammehrjerdi and Sara Shishehgar designed the research dataset and performed data analysis. Zahra Alammehrjerdi and Kate Dolan wrote

the manuscript. All authors read and approved the final manuscript.

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