



## Women Opiate Users' Perception toward MMT: A Qualitative Study in Iran

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### ABSTRACT

**Background:** Methadone maintenance therapy (MMT) is an evidence-based approach for opiate addiction treatment. While its effectiveness in reducing opiate use has been evidently verified, unanswered questions with respect to the cultural scenarios for MMT programs remain unanswered. This study was conducted to explore understanding address MMT initiation among a women-recruited sample of persons who use Opiate.

**Methods:** Qualitative in-depth interviews were used in purposeful and maximum variation sampling. All participants recruited for interview in 60-90 minutes were 17 women with opiate addiction experience from three MMT clinics in Sari capital city of Mazandaran, Iran. We applied a content analysis with a conventional approach for analyzing and finding addicted women perception towards MMT.

**Results:** To answer the main concern of the research team about how Iranian Opiate-addicted women perceived the MMT. The results were categorized into six main themes including Service Providers' Support, Stigma in Society, Fear of Rejection, Long waiting time, Family Support, and Methadone' Side Effects.

**Conclusion:** The results revealed that there are several perceived reasons beyond personal and psychological factors. The contextual experience acts as important cues that might encourage or deter drug users toward MMT.

## 1. Introduction

Methadone maintenance therapy (MMT) is an evidence-based approach for opiate addiction treatment [1,2]. While its effectiveness in reducing opiate use has been evidently verified, unanswered questions with respect to the cultural scenarios for MMT programs continue to attract attention.

Past studies have included several variables associated with increased MMT application

among women at young age like less extensive criminal records, increased use of amphetamines and decreased alcohol dependence as compared to their men equals [3,6]. In spite of significant literature supporting methadone use for opiate addiction treatment, patient cooperation in MMT programs remains low in various settings [7,8].

Previous studies reveal gender as a

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Demographic variable in MMT program indicating lower rates of methadone use among men opiate users [9]. Females additionally have higher rates of maintenance in MMT programs [10-12].

However, gender-specific barriers to health care do exist and appear to be greater for women than men [13, 14].

Therefore, the need to consider gender when designing strategies to improve recruitment into MMT is essential. Moreover, other barriers to MMT uptake still exist. However, based on one relevant study some factors negatively associated with MMT use included male gender, aboriginal ethnicity, recent incarceration, sex-trade involvement, syringe lending, denied addiction treatment, heroin injection, and nonfatal overdose [15]. Opiate addiction as a complicated cultural-behavior concept not only restricts demographic and individual factors, but also address multidimensional factors retaining MMT program. The present study was conducted to explore understanding MMT initiation among a women-recruited sample of persons who use opioids. Moreover, for development of relevant tools to measure attitudes towards MMT in quantitative paradigm the data extracted from present study would be more beneficial.

## 2. Material and Methods

Between March and September 2014, 17 in depth semi structural interviews were conducted on opiate users in Sari, Mazandaran province, Iran. Approximately two-thirds (n=12) of the participants were persons who entered most recently into methadone treatment. The other patients included five addicted persons who had already been using methadone but dropped out and persons who had never entered into methadone treatment. The sample size was estimated by "theoretical saturation" as the investigator continued developing the sample size until the interviews showed no new information [15].

Purposive sampling with maximum variation was performed to collect data from three MMT clinics randomly selected from a total of 9 MMT clinics in Sari. In order to achieve comprehensive information, addicted persons from different age

groups, educational levels, marital status, and cleaning history were recruited. Study investigators also asked health care providers in MMT clinics to refer some of the opiate users.

Dropped out of the program for in-depth interviews. Five clients who had never been treated by methadone were enrolled from nongovernmental organizations (NGOs). The inclusion criteria in the present study were: having a history of drug consumption; (2) age over 18 years, and signing informed consent to participate in the study.

### 2.1. Data Collection

The in-depth semi structural interviews continued 60–90 minutes and were performed by experienced interviewers in qualitative research. The interviewer received three days of training on the study aims and questions, qualitative interviewing skills, protection, and ethics. Before interview, patients were told about the study purpose, methods, and benefits and problems of the study. All interviews were audio recorded. No personal indicators related to the recorded interviews were used. All patients were given swimming pool cards as a gift for their participation.

Interviews were semi structured based on specific procedures and comprised open-ended questions to be answered when required. The open-ended questions asked patients about their socio-demographic characteristics, way of using drug, treatment objectives, treatment experiences, opinions about MMT clinics, barriers versus continuing treatment with methadone. The patients who just enrolled in MMT clinics, were asked how they entered the MMT program. Their views on MMT service, physician–client relationship, and their perceived barrier toward continuing the treatment were also for those clients who never entered methadone treatment, information was collected on the aim why they did not select MMT and their inclination to contribute in the future program. For those clients who released from methadone treatment, the questions were mostly highlighted the causes for cessation of methadone treatment.

### 2.2. Data analysis

We applied a content analysis with a conventional approach in order to analyze the data. Finding patients' perception towards methadone treatment and key categories as well as comparing tendencies occurred through the different groups.

The main researcher read the interviews several times and discussed the best method about coding. The Graneheim method was used for collecting and analyzing data simultaneously [16].

Before starting the new interview, each interview was recorded, analyzed and coded in a way that each interview direction was specified by the previous interview's data. The following phases were performed for analyzing data. First the investigators read and reread the records, and highlighted main quotes that revealed patients' experiences regarding methadone treatment.

Comparative analysis was applied for extracting primary codes that could take account for concept. In the following phase, categories were organized based on separate codes. According to the differences and similarities, primary codes were categorized [16]. During the analysis, the investigator repeatedly controlled similarities and differences in the data and texts, continuously compared them, and chose the key concepts until the end of collecting the data. All researchers contributed to data coding process.

Furthermore, the codes were double-checked, and compared with primary results a few days after categorizing. It was then probable to classify a set of categories that the investigators approved would classify all the quotes into the subcategories stated. Lastly, categories and subcategories of each interview were combined and the effect of linked reasons on methadone treatment in patients was achieved. All transcripts were entered into the MAXQDA software version 10.

### 2.3. Validation

In order to validate data in the present study, interviews and the taken codes from each interview were offered to the patients and their opinions about the concept of the codes were demanded; if they declared different opinions, their corrective statements were used.

Furthermore, the transcript was offered to some investigators who did not participated in the study as external observers in order to check the coding process accuracy.

### 2.4. Ethics of study

The ethics committee of Tehran University of Medical Sciences was approved for the present study. We obtained informed written consent from all participants. Effort was made to see the ethics of study, offering the patients the option to give up every time they desired, and by keeping their information confidential. The researchers guaranteed the patients anonymity of to this end, each patient was given a code.

## 3. Results and Discussion

### 3.1. Demographic characteristics of participants

The demographic characteristics of the patients showed 17 addicted persons who were interviewed, 14 (82.4%) were IDU and 11 (64.7%) had consumed opiate for over 10 years. About sixty percent of patients were 25–19 years old, half of whom were married, jobless, and finished the high school.

We obtained data richness and saturation from 14 individual interviews including drug users ranging between 22 and 47 years old (median: 31 years). Half of the patients were married, 37% were single and 13% were divorced. The opiate drug use of patients ranged from 11 months to 11 years.

To meet The main concern of the research team about how Iranian opiate- addicted women perceived the MMT, The results were categorized into six main themes including Service Providers' Support, Stigma in Society, Fear of Rejection, Long waiting time, Family Support, and Methadone' Side Effects. The following themes are clarified in detail.

### 3.2. Service Providers' Support

The strong support from local experts were regularly stated by new registered MMT clients in MMT clinics. "Just go to MMT clinic and question for confirmation of the identifications, native Experts, they will sign them rapidly. Community is

supportive, no worry or change recommendation.” (31, stable job, divorced, 4 yrd) “Specialists have done all their duties; they made no problem (in order to MMT registration).

*I’m unlucky to be an addicted person, specialists persuaded me. I came to the MMT clinic and the treatment team prepared orders in all detail.” (33, unemployed, divided, 6 yrd) Having informational support from MMT was reported as important factors to accept treatment. MMT clinics regularly asked clients, especially patients who were called “MMT peer educators”, to assist in providing MMT information and encouraging other clients to register in any case through the initial period after the opening of each clinic.*

Patients often reported that they first received information about MMT clinics through their peer clients like MMT patients, and it seemed that they were strongly influenced by the patients who had been on MMT and by the remarkable modifications in their life. “...I received information about MMT program since starting. My addicted friends who were under methadone treatment told me that it was good treatment. Therefore, I willingly acquiesced a request for methadone treatment.” (47, stable job, married, 7 yrd) “Hear there is a guy who was even more depressed than me. But now he has a car to go around, he wears neat clothes. I asked him how he changed. He told me that he went for methadone therapy and stopped consuming heroin. He accepted this treatment...” (40, unstable job, single, 3 yrd).

### 3.3. Stigma in Society

One of the main causes that made some clients especially new ones reluctant to reveal their drug consumption and hesitant about taking methadone is perceived stigma, although they really desire to be cured with methadone. It is almost difficult to conceal an addicted person's status from the community once she came to MMT center as a patient. Specialists and other MMT patients would discover that they are addicted. Due to patients' daily returning, people close to the MMT clinic would identify them as MMT patients as well. “Now just my family members and my drug-

consuming friends see that I’m addicted. The neighbors aren't aware of my addiction status. Now, if I go to methadone center for consuming methadone, then every person would see.” (Non-applicant, 27, wealthy family, single, 2 yrd).

“Throughout that time my financial condition was not as bad as it is nowadays, I was working and didn't desire others to know about my addiction, and I tried to hide. Then this year, I required to go to MMT, but I saw that the approach was difficult, consequently I didn't make it (35, unstable job, single, 3 yrd). Some clients were distressed about being referred to required rehabilitation clinics. When they used methadone, their position would be recognized and experts might send them to these centers before an MMT acceptance suggestion could be made. Actually, some MMT interviewees and clients stated that they were sent to “camps” after they used methadone even though usually they would not assume that to occur. “My friend, whom I frequently associate with, told me that I shouldn't enroll for methadone. She said when you enrolled for methadone you would be in the community's list of recognized addicted persons, and they would later refer you to the camp.” (42, jobless, married, 3 yrd).

### 3.4. Fear of Rejection

Some clients stated having had difficulties during their registration process since they were not previously known addicted persons, and so the community rejected to confirm their clients status or their request was later rejected. “I went to methadone clinic for starting treatment, but I saw it fairly difficult, the district administrators that increase complications, it's similar if I need them to support me and I must do something for them.

*They did not show that directly, but they presented unfriendly perception... Consequently, I sensed depressed. Then I ran across a police officer, he also caused problems, saying these things are essential. I'm previously full enough all day for using my drug, but he keeps telling me to come see him tomorrow, or the next day ...” (36, unemployed, divorced, 4 yrd) “I thought that it didn't any problem for me, but I faced many difficulties for long time... I saw that I was not in*

*the list of registered clients of the district, and therefore my request was not accepted that time I had considered the pre-treatment counseling periods, I believed that I would start using methadone in about two weeks, but I waited for 4-5 months without any news, I'm consequently disappointed..." (28, stable job, single, 3 yrd).*

### 3.5. Long waiting time

Long waiting time of prior interviewees also had a bad outcome on the feeling of other addicted persons who were observing MMT. Long waiting time is mostly affected by restricted acceptance capability in some regions, but some clients also observed the usual one month waiting period by the multi-step choice process as unfavorable. *"I perceived that requests must primary be reviewed and accepted by clinics, then they will be referred to the clinics... Afterward it will take 15 days before you can start using methadone. It would be suitable if all can be finished within two weeks, as clients all need to take the treatment fast. If the waiting time lasts one month, we have to receive that, but in my opinion it's too long. (30, unstable job, single, 5 yrd).*

### 3.6. Family Support

Family members of addicted persons have an important role in their registration process.

Support from family members may include informational, emotional, or financial supports in the process of treatment in clinics. Indeed, participation of family members in as a treatment supporter is essential in the MMT program. Most patients in present study stated that their family members extremely cared about them. Many family members actively required more information after the initial facts about MMT clinics and persuaded the clients to receive it. In some patients, family members managed the registration process rather than clients themselves.

They referred to authorities to learn about the submission requests and method, and then completed most of the records requests. *"Since my family cares about me, they knew about methadone treatment when talking about its efficiency." (22, unemployed, single, 11 month). "I began using drugs long ago; and my family has*

*taken me to many camps for quitting. But I relapsed each time just 1-2 months after I came back home. My close friend was also dependent on heroin, but he is using methadone now. When he came to my place, he looked very well, he does not use drug any more.*

*My father was happy and he took me to the methadone clinic..." (24, no job, single, 15 month). During registration in clinic, family members are often a main source of support for treatment costs of clients who do not have constant income. Most MMT clinics in Sari required treatment fees, and clients had to pay for the drug. The cause for that practice is to help the clients focus on the registration process which contains counseling and group education on treatment. "My brother helped me out; he filled out all the paperwork and other documents for an MMT submission. From then on he gave me money. In fact, I tried to manage on my own, but I could do it for just 2-3 days, then I had to get help from my brother and my mother." (31, stable job, divorced, 4 yrd).*

While family's over-all support is a great help to most addicted persons as mentioned earlier, lack of family support is a major obstacle to MMT registration of some other clients, since participation of a family member as a treatment supporter was necessary in the registration procedure of any patient. Family participation is even vital because many addicted persons do not have the incentive to go to MMT clinics to get information or orders or to begin the registration phase. This deficiency of trust tends to be a consequence of their earlier experience of stigma and judgment against addicted persons.

*"My wife said: "If you want to use methadone, go to use yourself". I believe there must be an we still face the stigma in society, and nobody desires to speak to an addict. It is too hard. (39, no job, married, 3 yrd). "I didn't want to get the information since I haven't been accepted. I do need to use methadone, but I'm scared of going to the clinic to ask... I have advised my mother to go there to ask why it is too long. But my mother is fairly busy; she goes to work to get money. She did not pay attention..." (27, no job, single, 2 yrd).*

### 3.7. Methadone' Side Effects

Misconstruction and doubt about the effectiveness of treatment with methadone was reported by most of the participants. Some were worried that methadone is a testable drug, that may have many side effects. Some patients believed that methadone may help clients stop consuming drug after a short-period treatment.

Some even stated trying it for a limited days or occasionally, without any information about the danger of self-treatment. Methadone is a longstanding replacement treatment and it is estimated that most clients will use it throughout the first few months as the dose will increase and changing stage. Without the accurate information about MMT, addicted people or some other individuals may think that methadone is ineffective when they recognize that some MMT clients remain consuming drugs. *"Some patients thought that methadone does not stop drug consumption consequently why use it. However, I went to counseling meetings, and I understood that initial treatment of the methadone dosage is not adequate, therefore you may still desire to use drug. Then, when methadone dosage increases you won't desire to use drug at all. So, you can leave drug absolutely."* (46, stable job, married, 3 yrd).

*"I've never used. On one side, I decided to use methadone because other addicted persons said it is effective. However, I don't desire to use it as I think using it for a long time makes me depend on it, if I did not use methadone I would probably have craving. I see many addicted persons consuming methadone in the morning and still taking drug in the evening as usual."* (32, unemployed, divorced, 5 yrd). This study was aimed to explore Iranian women opiate users' attitudes toward MMT. As a result, several core concepts including service providers' support, stigma in society, fear of rejection, long wait time, having family support, and methadone' side effects emerged.

Although there was high request for MMT amongst opiate addicted women as discovered by present study, slow growth and inadequate acceptance capacity of the program is the main barrier to MMT availability so far. Some other

barriers (e.g., lack of expert support and discrimination in drug users' choice), are closely associated with inadequate acceptance capacity, in the authors' view. When the program is developed to the point where MMT capacity faces the request for it, these barriers will probably be removed or considerably reduced. It must also be considered that appropriate government organizations, with support from global and non-governmental organizations, have been working on a strategy for changing the MMT centers as the basic component for treatment of drug users [17]. The results of present study show that in the background of the current MMT program in Sari there is no appropriate prediction of enrollment for MMT based on the patients' intention. The important question here, for most clients, is that the correct intention to use MMT services (i.e., to perform a changing behavior) was influenced by several programmatic and systemic barriers, including severely inadequate access to service and the practice of carriage clients to setting required recovery centers. In such a situation, correct intention or wish will not essentially transform into action since the patients understand that their action of enrolling for MMT clinics is improbable to result in a wanted outcome. Based on Theory of Planned Behavior, the degree that attitude, social norm and perceived behavior control can be applied to estimate person' intention is also very restricted here [18]. That is as there is not much room left for the effectiveness of estimation in a condition that almost all study participants announced that they were going to use the treatment as soon as there was a chance of being accepted. Some authors have recently reported perceived barriers to MMT registration from the viewpoints of drug users and service viewpoints of drug users and service providers [19, 20]. Some of the reported barriers to MMT in China were similar to those in our study, for example the practice of continued referring of clients to cleansing centers, unsuitable MMT clinic working hours, no carryout doses and difficult paperwork for transferring to another clinic. There were also main differences between the two plans and their level of facilities application. As shown in the results, the offering of MMT information by official sources was still restricted in Sari, leaving many clients either uninformed of MMT service or

sensitive to negative attitudes of unbelieving friends. The issues of misinterpretation and doubt, also seem important only in areas where MMT is recently offered. In the present study, patients from regions with older MMT clinics only stated misinterpretation and doubt of themselves or of their friends in the past. The result of a cross-sectional survey on 300 new MMT clients in Guangzhou (China) showed that misapprehensions were very common among drug users as the majority of them observed that MMT was planned primarily for cleansing [21]. Having supports from experts are very essential for the use of MMT in Sari. They are responsible for preparing information/guidelines, encouraging doubtful clients, etc. consequently, the level of support from experts is an essential issue influencing clients' decision whether to register for MMT clinics or not. This means that insufficient expert support can be a main barrier to MMT availability.

It is a strategy of the Iranian National MMT Program to motivate all drug users to contribute to the maintenance program. But national procedure must be matched with expert support to make a positive strategy setting that assists and provides clients with more confidence in using for MMT.

Difficult registration processes and hard-to-perform confirmation requests are two barriers to MMT registration that should be simplified as soon as possible. Although acceptance capacity cannot be developed in the near future, the reduction of the registration process and needs can still decrease the time and paperwork problem of MMT enrollment. Simpler paperwork requests and shorter waiting time will improve the willingness of clients to register in MMT clinics. Besides MMT can bring important financial advantage to clients and their families by saving the price of day-to-day drug consumption and other related costs. As stated by other studies [19, 22], the results showed that the necessity for a daily clinic visit for taking daily methadone dose was an undesirable element to MMT contribution and maintenance.

To decrease the problem of daily presence and assist clients' enrollment to usual social life, the MMT program in Sari must consider approving take-away doses. In Gerra' study (2011), it was

presented that contingent take-home reason was related to improved treatment results, compared to controlled daily intake [23]. In order to reduce abuse of methadone, the opportunity of take-away doses should be considered, as a motivation, to stabilize clients who have presented good adherence records like urine test. For clients who want to travel, an easy transportation means should be prepared so that a travelling client can simply receive her dose at a clinic in the destination locality (if available). Program administrators should also study performing more flexible treating hours at MMT clinics so that most working clients detect some suitable time to come for treating. Present study presented positive attitude and respectable MMT facility acceptance among most patients. We ascribe this to the respectable treatment results of present and prior MMT clients not only in inviting addicted persons but also in continuing a high maintenance rate, about 90% during the first year and 80% after the second year [17,24]. One issue that might have been contributing to this success is the contribution of a family member or another responsible person as the treatment supporter as a necessity for every client. This is possible since most addicted persons in Sari live with their families and there is generally at least one family member who pay attention to the addicted person.

Most participants' relatives are ready to pay whatever they can able for an effective treatment of the clients as well. Having no financial support for entering to methadone treatment may occur in clients in very poor relatives. According to the report by Lin (2011), having family support influenced improve d health consequences [19].

Limitations include the potential that we studied women living in Sari (the capital of Mazandaran) and therefore their opinions may not sufficiently show the opinions of women living in other backgrounds. More qualitative and quantitative studies are required to study the experiences and desires of women from other areas and cultures.

## 4. Conclusions

The results revealed that there are several perceived reason beyond personal and psychological factors in context of experience are

most important cues that might encourage or deterrent drug users toward MMT.

## Competing interests

The authors declare that they have no competing interests.

## Authors' contribution

All authors read and approved the final manuscript.

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