

## Original Article

# Stigma and its Determinants among Male Drug Dependents Receiving Methadone Maintenance Treatment

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## Abstract

**Background:** The stigma attached to substance use is considered as a barrier to treatment, resulting in continued dependence and harmful consequences for the health of drug abusers and society.

**Methods:** In the current study, stigma and its relation with patient characteristics and secrecy was examined in people who were in treatment of drug dependency. Participants were 144 patients from two referral methadone treatment centers who completed a survey containing questionnaires about stigma, secrecy and other measures of drug use.

**Results:** Patients reported high levels of self-stigma and moderate levels of stigma-related rejection and perceived stigma as well as commonly using secrecy, as a way of coping. More experiencing of self-stigma was associated with unemployment, positive history of IV drug use, incarceration and heroin consumption, compared to opium use. IV drug users and unemployed persons also reported more contacts with stigma-related rejection. No association was found between stigma and previous history of treatment for substance abuse.

**Conclusion:** Findings indicate stigma in individuals who are in the treatment for substance dependence and highlight the need for more studies to clarify all aspects of drug use stigma.

**Keywords:** Drug dependency, stigma, substance abuse

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## Introduction

In the recent two decades, more attention has been drawn toward stigma and its possible consequences, especially after WHO launched programs against stigma. Stigma is a social phenomenon. Stigmatized characteristics differ from one society to another, depending on the existing social context; therefore, it can change over time.<sup>1,2</sup>

Stigmatized people might deal with three forms of stigma: 1) Enacted stigma (the experience of discrimination, rejection and devaluation): labeled individuals frequently encounter social disapproval problems in securing employment, housing and governmental facilities.<sup>3,4</sup> 2) Perceived stigma (perception of negative social judgment and devaluating attitudes about the stigmatized person).<sup>5</sup> 3) Self-stigma: this stigma refers to internalization of discrediting beliefs resulting in low self-esteem and feeling of shame and worthlessness.<sup>6,7</sup>

People with mental illnesses and especially substance users are the most common victims of stigmatization in almost every culture.<sup>8</sup> Stigma, in its various forms, plays a critical role in stigmatized people's health and psychological wellbeing.<sup>9,10</sup> A large body of evidence has shown association between self-stigma and decreased self-esteem, anxiety, depressive symptoms, and lower quality of life in the labeled individuals.<sup>11-14</sup> Stigmatized people use specific coping strategies such as secrecy, withdrawal and so-

cial isolation to reduce their chronic stress caused by their label. These applied methods make accessing and treating these patients more complicated.<sup>15</sup>

Illicit drug users are strongly stigmatized in most countries due to their illegal use and unaccepted behavior.<sup>16</sup> Compared with other mental patients, substance users are considered more responsible for their actions.<sup>17</sup> Even after entering the treatment process, the stigma associated with substance use stays with the user.<sup>18-19</sup> Some studies have suggested that the stigma of drug injection, as one of the most stigmatized conditions among substance users, increases the risk of HIV, as they hesitate to seek help and engage in needle exchange programs.<sup>20-23</sup>

Iran has faced drug use problem over decades. The stigma attached to substance use and legal restrictions are the main obstacles preventing drug users from attending treatment centers or giving clear information about their conditions. This has resulted in their perpetual dependence and, therefore, harmful consequences on these individuals' and public health.<sup>24</sup>

This study is an initial survey about stigma in male patients under treatment for drug dependency in Iran. We examined the extent to which those people experience stigma in its different forms and how much they apply secrecy as their coping technique. There is evidence to show that socioeconomic and demographic status, as well as certain characteristic features such as social function and mood-related variables, may affect frequency and strength of stigma.<sup>25-27</sup> We also examined the association between stigma and certain factors, such as socioeconomic status, substance type and positive history of legal problems and IV drug injection.

## Materials and Methods

A hundred and forty-four patients were recruited for this study via postings at Kashan Methadone Treatment Centers. In the

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first session, research assistants provided necessary description about the study while emphasizing the fact that participation was completely voluntary. In case of any questions, experimenters answered them; subsequently, the volunteers completed the questionnaires. Incentive payments were made to those who participated in the study.

Three self-report scales were used to evaluate stigma experiences. The first was the substance abuse perceived stigma scale (SAPSS), a revised version of Link Perceived Stigma Scale,<sup>5</sup> for use on people with substance abuse problems. This scale consists of 12 items, scored on a seven-point Likert scale from 1 = Never to 7 = Always, showing the degree of negative attitudes or behavior's perception. The items were reversely scored, with higher scores indicating more perceived stigma. The Cronbach's alpha was 0.65 in this study.

The second questionnaire was SRS (stigma-related interpersonal rejection): a 9-item self-report, measuring the extent to which respondents report enacted interpersonal stigma. SRS was developed by Wahl<sup>30</sup> for mental patients and revised by Luoma to apply to drug users. Items are rated on a seven point Likert scale from 1 = Never to 7 = Always. Higher scores show higher levels of rejection experience in interpersonal relationship. The alpha coefficient in our study was 0.6.

In order to assess self-stigma, we used Interpersonal Shame Scale (ISS), which is a 30-item test with two subscales of shame and self-esteem, measuring the degree to which respondents have internalized levels of shame and worthlessness.<sup>28</sup> The 30-item uses a Likert five-point scale from 1 = Never to 5 = Almost Always, and comprises 24 negatively-worded items which evaluate the extent of shame and 6 positively-worded items which make up the self-esteem scale. According to the manual for the ISS, clinically significant scores indicating levels of shame are: 50–60 = moderately high shame, 60–73 = high shame and 73 or above = very high shame. Therefore, we chose 50 as the cutoff point indicating high levels of shame.<sup>29</sup> This scale had the highest internal consistency in our study (Coefficient alpha = 0.84).

Two other measures were used, as well: first, the Secrecy Coping Scale was used to assess secrecy as a coping method against stigma. This four-item questionnaire was first developed by Link (1997) in mental illnesses, then modified by Luoma in substance abuse problems. Items in this scale are answered with "Yes" or "No" and higher scores indicate higher secrecy.<sup>7,30</sup>

The last questionnaire contained 17 questions about demographics, education level, occupational status, previous treatments, type of used substances and legal issues.

The questionnaires were translated into the Persian language by two experienced translators separately. The translations were compared with each other, and sent to three experts in substance use and then corrected based on their opinions. Back translation was also performed by two bilingual translators and some changes were incorporated. Final correction was made in the questionnaires after a focused group session with 15 people as a sample size and final psychometric assessments were performed.

All statistical analyses were conducted using SPSS version 13. We used mean and standard deviation to describe continuous variables. Frequencies and percentages were used for categorical variables. Pearson correlation coefficient was used to assess the relationship between variables and *t*-tests and ANOVA for observing differences between categorical data and comparing means. All statistical tests were done at a significance level of 0.05.

## Results

A hundred forty-four men participated, with a mean age of 35 years (SD = 8.6, range 20–68). The most common substances used by the participants were opium (43.6%) and crack (condensed heroin, 32.3%), respectively. 19.5% of the cases had history of using at least 2 substances (opium with crack or heroin). 35.4% (N = 51) of them had positive history of drug injection, 50% (N = 72) had prior episodes of treatment and 48.6% (N = 70) were incarcerated before. Table 1 demonstrates the demographic characteristics of participants.

**Table 1.** Sample characteristics.

	Number	Percentage (%)
Gender		
Male	144	100
Female	—	—
Age	35.9±8.8*	—
Marital status		
Single	45	31.5
Married	93	65
Divorced	4	2.8
Widowed	1	0.7
Education		
Illiterate	16	11.2
Primary school	48	33.6
Middle school	41	28.7
Diploma	37	25.9
College degree	1	0.7
Occupation		
Worker	58	40.6
Employee	14	9.8
Unemployed	33	23.1
Private job	38	26.6
Substance		
Opium	64	44.4
Heroin	—	0
Crack	53	36.8
Multiple substances	27	18.7

\*Mean ± SD

**Table 2.** Responses to perceived stigma items.

Item	(1) Very strongly disagree	(2)	(3)	(4) Neutral or don't know	(5)	(6)	(7) Very strongly agree	25% percentile	Median	75% percentile	Mean
1. Most people would willingly accept someone who has been treated for substance use as a close friend. ( <i>n</i> = 139)	39	5	1	39	1	3	51	1	4	7	4.1
2. Most people believe that a person who has been treated for substance use is just as intelligent as the average person. ( <i>n</i> = 137)	28	5	1	43	1	1	58	3	4	7	4.5
3. Most people believe that someone who has been treated for substance use is just as trustworthy as the average citizen. ( <i>n</i> = 136)	28	2	5	45	4	1	51	3	4	7	4.5
4. Most people would accept someone who has been treated for substance use as a teacher of young children in a public school. ( <i>n</i> = 135)	45	1	4	36	1	1	46	1	4	7	4.0
5. Most people feel that entering treatment for substance use is NOT a sign of personal failure. ( <i>n</i> = 137)	36	1	3	52	2	3	42	1	4	7	4.1
6. Most people would hire someone who has been treated for substance use to take care of their children. ( <i>n</i> = 144)	56	7	5	44	2	2	28	1	4	4	3.3
7. Most people do NOT think less of a person who has been in treatment for substance use. ( <i>n</i> = 130)	25	4	3	74	1	1	22	4	4	4	3.8
8. Most employers will hire someone who has been treated for substance use if he or she is qualified for the job. ( <i>n</i> = 135)	35	6	2	45	2	3	42	1	4	7	4.1
9. Most employers will NOT pass over the application of someone who has been treated for substance use in favor of another applicant ( <i>n</i> = 135)	44	4	4	49	2	1	31	1	4	5	3.6
10. Most people in the community would treat someone who has been treated for substance use just as they would treat anyone else. ( <i>n</i> = 130)	45	2	4	41	2	2	34	1	4	7	3.7
11. Most people would NOT be reluctant to date someone who has been treated for substance use. ( <i>n</i> = 133)	36	1	4	40	2	4	46	1	4	7	4.2
12. Once they know a person has been treated for substance use, most people will NOT take his or her opinions less seriously. ( <i>n</i> = 135)	33	4	2	44	3	4	45	1	4	7	4.2

**Table 3.** Responses to stigma-related rejection items.

Item	(1) Very strongly disagree	(2)	(3)	(4) Neutral or don't know	(5)	(6)	(7) Very strongly agree	25% percentile	Median	75% percentile	Mean
1. I have worried that others will view me unfavorably because I have been in treatment for my substance use.(n = 134)	29	10	11	39	10	20	22	2	4	6	3.8
2. I have been in situations where I have heard others say unfavorable or offensive things about people who have been in treatment for their substance use.( n = 134)	17	18	21	25	23	15	14	2	4	5	4.2
3. I have seen or read things in the mass media (e.g., television, movies, books) about people who have been in treatment for their substance use that I find hurtful or offensive.( n = 133)	33	25	16	28	9	12	10	2	3	4	3.2
4. I have avoided telling others outside my immediate family that I have been in treatment for my substance use.(n = 135)	33	14	18	17	14	20	19	1	4	6	3.7
5. I have been treated as less competent by others when they learned I have been in treatment for my substance use.( n = 134)	40	18	16	22	13	11	14	1	3	5	3.2
6. I have been shunned or avoided when it was revealed that I have been in treatment for my substance use.( n = 134)	51	18	18	21	4	17	5	1	2	4	2.8
7. I have been advised to lower my expectations in life because I have been in treatment for my substance use.( n = 134)	29	14	16	30	9	19	17	2	4	6	3.7
8. I have been treated fairly by others who know I have been in treatment for my substance use.(n = 135)	14	12	13	24	18	23	31	3	5	6	4.5
9. Friends who learned I have been in treatment for my substance use have been supportive and understanding.( n = 134)	9	12	11	32	17	24	29	4	5	6	4.6

In our study, self-stigma had the highest rate amongst participants. About 85.4% of individuals scored higher than 50 in the shame subscale, indicating frequent experiences of internalized shame.

On the SAPSS, the mean item scores was  $3.97 \pm 1$ ,  $P = 0.8$ . On the average, 30% of the participants had positive response across each item, experiencing perceived stigma. The highest degree of perceived stigma was noticed in item number 6 which states, "most people would hire someone who has been treated for substance use to take care of their children" (47% disagreement) (Table 2).

Responses to the SRS are shown in Table 3. The most frequently

reported stigmatized experiences were seen in the fourth item: 39.2% avoided telling others about their treatment. However, responses to the last two items, worded as positive, were different. 53.3% reported that they had been treated fairly by others who knew they had been in treatment for their substance abuse and 52.2% described their friends who had realized that they had been in treatment for substance abuse, as supportive and understanding.

Participants used secrecy as a coping method to a great extent: 64% of participants hid their history of substance dependency, while 70% advised a close relative not to tell anyone that they have serious problem with substances and 85% waited until they would know people well before they opened up about their sub-

**Table 4.** Correlations between stigma variables and secrecy coping.

	Stigma-related rejection	Internalized shame	Perceived Stigma	Secrecy coping
Secrecy Coping	.124	.214*	.095	1
Perceived Stigma	.092	.181	1	.095
Internalized Shame	.539**	1	.181	.214*
Stigma-related Rejection	1	.539**	.092	.124

\*\*Correlation is significant at the 0.01 level; \*Correlation is significant at the 0.05 level.

**Table 5.** Comparison of means of stigma dimensions by demographic characteristics\* Differences between marked items are significant at the 0.05 level.

	Internalized Shame	P-value	Stigma-related rejection	P-value	Perceived Stigma	P-value
<b>Education</b>						
Illiterate	121.5±32.8*	0.042*	35.2±8.4	0.377	46.7± 10.1	0.965
Primary school	113±23.99		32.1±11.5		47.3± 14.9	
Middle school	102.5± 27.7		32.15±8.26		48.6± 11.02	
Diploma	96.2± 32.4*		29.45±11.7		47.6± 11.9	
<b>Occupation</b>						
Worker	114.6± 26.7*	0.000*	34.13±11.27*	0.014*	47.19 ±12.97	0.988
Employee	93.4± 28.34		33.46± 10.88		48.18± 9.94	
Unemployed	117.7± 24.7		32.29±8.22		48± 14.17	
Self- employed	90.4± 29.14*		26.8± 9.84*		47.7± 12.54	
<b>Substance</b>						
Opium	99.5± 31.9*	0.018*	26.9±10.32	0.385	44.2 ±14.21*	0.025*
Heroin	104 ±39.14		33.83±6.11		44± 18.76	
Crack	105.8± 27.96		33.10±11.99		52.3± 8.73*	
Multiple substances	126.8± 12.38*		33.59±10.18		50.7± 11.36	
<b>Hx of incarceration</b>						
Yes	111.74±26.61	0.053	32.96±11.68	0.180	49.4±12.05	0.195
No	100.49±30.44		30.4±9.31		46.32±13.04	
<b>Prior IV drug use</b>						
Yes	120.3±21.53	0.001*	35.37±12.21	0.009*	49.36±10.95	0.266
No	100.65±29.97		30.26±8.86		46.54±12.9	
<b>Previous treatment</b>						
Yes	112.66±27	0.054	33.08±8.71	0.346	50.7± 10.76	0.069
No	101.10±29.17		31.23±12.03		46.41±12.70	

stance issues. Finally, 37% thought that keeping secret about their history of substance use is a good idea.

Table 4 shows the pattern of correlations between forms of stigma and secrecy coping. We also examined the relevance of demographic factors, previous treatment, drug injection and history of prisoning with stigma variables. The results are shown in Table 5.

## Discussion

In this study, 30% of the participants on the average reported the frequency of perceived stigma from “sometimes” to “always”. This study found lower level of perceived stigma compared with Luoma’s.<sup>7,30</sup> The answers to the questionnaire’s items were mainly described as ‘totally disagree’, ‘totally agree’, ‘neutral’ or ‘I don’t know’. The frequency of the answer ‘I don’t know’ made decision-making rather challenging and we are not sure how much eliminating this answer and replacing it with either ‘agree’ or ‘disagree’ can affect the final results. On the other hand, the role of culture and its influence on people’s recognition and perception of their environment might affect the results, as well.

With regard to stigma-related rejection, an average of 30%

of responses to the first seventh items showed the sense of being rejected to some levels in their interpersonal relationships. However, on the two last items, more than 50% of the participants reported positive attitudes from supportive friends and family members. These results are inconsistent with Luoma’s study on individuals receiving treatment for substance abuse and also Wahl and Dickerson’s on mental patients where treatment-related items were correlated with feelings of being rejected by others.<sup>7,26,31</sup> Similarly, in Semple’s research on methamphetamine abusers, individuals who had participated in drug use treatment reported higher degrees of stigma-related rejection compared with the no-treatment group. Based on Link’s modified labeling theory,<sup>5</sup> Semple and Luoma concluded that entering treatment is related to beginning of being labeled as a drug addict; thus, the treatment itself can be associated with experiencing stigma.<sup>7,32</sup> In contrast, we did not find any relation between previous treatments and forms of stigma.

There are theories to explain how our findings contradict those from other studies. The first theory based on our findings is that stigma is not related to the history of treatment; even starting the treatment itself may decrease the individual’s negative feelings

and perceptions. Another theory is based on cultural differences. Those discussed studies have been performed in societies with high levels of individualism in which the interpersonal relationships are not as close as collectivistic cultures and people are able to hide their personal issues more easily. It is likely that in such cultures, starting treatment is a leading factor in drug dependency disclosure in the society. Therefore, in many communities, starting the treatment accompanies increased perceived stigma and other rejecting attitudes where as in collective cultures, like Iran, and in smaller cities, in particular where people have closer relationships, hiding drug abuse and especially drug dependency seems to be impossible. Hence, in these cases, users have already experienced stigma before starting the treatment. Perhaps from other people's point of view, the new start can be considered a positive change towards recovering which makes users face less stigmatized attitudes. Thus, collectivism can also be another factor encouraging even more supportive behavior.<sup>33</sup> Proving this theory requires longitudinal and comparative studies on degrees of stigma in drug dependents before and after treatments.

In this study, we found positive correlation between self-stigma and stigma-related rejection but no significant relationship between the above mentioned stigma as and perceived stigma. This is in line with Luoma's findings which suggest strong association between self-stigma and stigma related rejection but weak relationship between self-stigma and perceived stigma.<sup>7</sup>

Harper considers childhood as the beginning of shame experience and he believes self-harm, substance use and violence are different ways to defeat the feeling of shame. Studies conducted on mentally ill patients suggest that self-stigma and shame caused by that to be the result of internalizing disease-related stigma. According to the self-stigma scales limitations in the current study, ISS was introduced as self-stigma equivalent in previous studies.<sup>7,34</sup> With respect to high self-stigma, we expected perceived stigma to be correlated with it, although the contradicting results in this study, as mentioned already, might be caused by inappropriate content validity in this questionnaire or cultural differences which influence people's perception in our country. The other explanation may be that self-stigma in drug users as an initiating factor might serve as a background for highly dangerous behaviors of these people. Croker and Camp showed that similar situations relationships are far more complex than what has been previously stated and self-confidence and internalizing stigma widely depend on social environment and the individual's response to stigma.<sup>11,35</sup> Since this study is cross-sectional, it is not possible to recognize the initiating factor in internalizing shame and better interpretation of the relations between these aspects requires longitudinal and comparative studies with standardized instruments. Nevertheless, it seems that correlation of self-stigma with other variables in the study is consistent with previous studies and presents it as an important strategic goal for ameliorating stigma.

In the current study, unemployed patients and those with lower levels of education had greater stigma experience. This result is relatively consistent with Golberstein's findings who reported higher level of perceived stigma in students with lower social and economic background.<sup>36</sup> In their work on general public, Hall and Brokington interpreted this relationship as higher educational level may accompany more recognition and tolerance towards mental disease.<sup>27,37</sup> In contrast to this hypothesis, Angermeyer considered that higher socioeconomic status and educational level are associated with increased perceived stigma in psychological

patients.<sup>25</sup> Werner's research on depressed outpatients yielded findings similar to ours and according to contradicting findings, the connection between education and self-stigma in mental patients might be dependent on patients' insight.<sup>38</sup> Also encountering stigma of addiction on its own can be an obstacle in person's education and finding job, therefore more interpretations requires extended longitudinal studies.

Moreover, the type of the drug used by patients was important. Using crack and heroin, compared with opium, was related with perceived and self-stigma in outpatients. In addition, these individuals significantly endorsed higher secrecy as a coping strategy. This finding is consistent with previous researches which showed that people's attitude toward drug users varies by the type of drug they use. For example, in a comparative study on people's outlook about tobacco, alcohol and cocaine, Cunningham showed that they consider using cocaine more addictive or criminal compared to using alcohol.<sup>39</sup> Similarly, Adlaf found that teenagers evaluate cannabis as less addictive or dangerous compared to other illegal drugs.<sup>40</sup> Based on a long history of familiarity with opium in Iranian communities, its users perceive less stigma compared with heroin.<sup>41</sup>

In this research, patients with drug injection and history of incarceration indicated greater experience of self-stigma. IV drug users also perceived higher degree of stigma. The increased stigmatization in people with history of incarceration and drug injection has been discussed in various studies; for example, Van Olphen interviewed women after their release from prison and reported an increased level of perceived stigma due to prison background.<sup>42</sup> In Luoma's study, IV drug abusers showed higher level of stigma in different forms, as well.<sup>7</sup>

In the present study, higher level of secrecy was reported. This is concurrent with Murphy and Irvin and Luoma's research on people on methadone treatment as well as Anderson's survey on patients recovering from addiction.<sup>7,43,44</sup> We found that patients with higher internalized shame, as well as heroin abusers and IV drug users, were more likely to adopt secrecy as their coping strategy. We did not find any relationship between the other forms of stigma and secrecy. However, we need to be cautious about interpreting these results because of the small sample in our study.

#### Study limitations and suggestions

The current survey was conducted in a cross-sectional design, making it impossible to have a precise investigation of causality between variables. Better identification of associations requires longitudinal studies on population involved in drug abuse.

In addition, lack of standardized instruments for evaluating stigma and its consequences was another weakness that limited us in interpreting the findings. Also, the associations in our results were not completely adjusted for the multiple comparisons. Therefore, they should be interpreted with caution due to the possibility of Type I error.

Generalizability of the study would be another limitation. The current study was conducted in a small city with limited sampling, so generalizing it seems illogical. To improve generalizing, wider sampling is required in larger communities.

Finally, lack of a control group and reliance upon self-report restrict this study. Further research is required to evaluate stigma experience in drug dependent individuals before and after treatment, families' and treatment center staff's attitudes and their effects on perceiving stigma in different cultures.

## Declaration of interest

The authors report no conflicts of interest.

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