Sustained Remission from Drug Addiction among the Attendees of the Meetings of Anonymous Addicts and Rehabilitation Centers in Mashhad, Iran, During 2017

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Background: Addiction is one of the most complex diseases of the century that for its treatment various methods have been proposed. In this regard, one of the non-pharmacological methods with a profound effect on drug withdrawal involves the participation of addicted individuals in a 12-step anonymous addiction recovery program. The purpose of this study was to compare the sustained remission from drug addiction among individuals taking part in an anonymous recovery program and those attending a rehabilitation center for drug withdrawal.

Methods: This descriptive study was conducted on 300 participants (150 individuals of the anonymous recovery program and 150 patients of the rehabilitation center) in Mashhad, Iran, using a random sampling technique. Data collection tool was a researcher-made questionnaire consisting of two parts, namely demographic information and information related to sustained remission from drug addiction in the attendees of the two groups.

Results: The obtained results indicated that there was a significant difference between the two groups in term of withdrawal from drug abuse ($\chi^2 = 0.08; P < 0.001$). Addiction resumption occurred in 40.7, 48.4, and 10.9% of cases in the first, second, and third months, respectively. Regarding addiction relapses, 42% and 70% of patients in the rehabilitation and anonymous groups failed to accomplish the recovery, respectively. Regarding sustained remission from drug addiction among the investigated subjects, 40% of the cases in the anonymous addict group and 51.6% of individuals in the rehabilitation center could persistently withdraw from drug abuse for more than 6 and 3 months, respectively. Accordingly, there was a significant difference between the two groups in terms of sustained remission from drug addiction ($\chi^2 = 0.08; P < 0.001$).

Conclusion: On the basis of the obtained results, it can be concluded that attendance to anonymous addict meetings can be a useful strategy to continue the addiction withdrawal after the detoxification period.

Keywords: Continued Withdrawal, Drug Addiction, Meetings of Anonymous Addicts, Addiction Dropout Camps
Introduction

Drug abuse can have negative side effects, including damages to the brain and other body organs. A large number of addicted individuals suffer from life-threatening disorders, such as lung, liver, and kidney damages. In other words, narcotic drugs can heighten the risks of mortality and early aging.\(^1,2\)

As the findings of recent studies indicated vulnerability to addiction is closely related to cultural and social factors as well as family issues. According to the conducted studies, the risk of addiction is higher among juvenile delinquents, street urchins, divorcees, poor people, and populous families.\(^3\) The lack of cultural facilities and recreational sports centers can also increase the risk of drug abuse, especially in deprived areas.\(^4\)

Marital status can also affect addiction, meaning that the prevalence of addiction is greater among married people than single individuals. Surveys conducted at addiction treatment centers have reported that the prevalence of drug addiction is about 10 times higher among men than women. Likewise, the investigation of addiction in Iran was indicative of a higher prevalence of addiction among male than female drug addicts.\(^5\)

Although addiction is a debilitating disease, determined individuals can successfully struggle with it and undergo the treatment.\(^6\) As a result, numerous methods have been employed in the treatment of drug abuse. Participation of addicted individuals in a 12-step anonymous addiction recovery program is considered as a non-pharmacologically method in drug withdrawal. In 1977, an association was formed for obsessive-compromised drug addicts with over 200 members and was later expanded to 50,000 groups in more than 130 countries.\(^7\) These free 12-step programs have proven to be the most effective way for drug withdrawal involving a simple day-to-day schedule to address all aspects of addiction.\(^8\)

According to the statistics of the association of anonymous addicts in Iran, the success of drug withdrawal was about 90% in people affiliated with this association during a 5-year period. Moreover, there was a decrease in the rates of drug-dependent people in the community and the duration of drug-dependency.\(^7\) Another way to quit drugs is to admit people to the addiction rehabilitation center. The referral to the addiction rehabilitation center and anti-drug abuse rules provide a moratorium, which usually lasts for about 1-2 months. This deadline is considered for the addicted person in case the addiction rehabilitation center has statutory rules and regulations, and the family of the addicted person accepts him/her as an addict.\(^9\)

There is no legal time for drug withdrawal, in fact, the duration of the addict admission at the rehabilitation center is as long as the patients’ health condition is not endangered. In case the addicted individual attends the center willingly, s/he can leave the rehabilitation center whenever s/he wants. As reported in other studies, 80% of relapses occur in the first 6 months after treatment. As a result, it is essential to conduct a proper preventive plan to help drug-dependent individuals to pass this critical period. Although many addicts decide to quit their addiction, relapses occur when they have abstained from using drugs for any period of time. Therefore, it seems that addicts need more information about their addiction reasons, and they need to get acquainted with the scientific and methodological methods of recovery.\(^10\)

With this background in mind, it is of utmost importance to pay attention to the addicted drug users, as well as the abandonment and continuation of the addiction withdrawal. This study aimed to compare the sustained remission from drug addiction among attendees the meetings of anonymous addicts and rehabilitation centers in Mashhad, Iran.

Methods

This comparative descriptive study was conducted on 300 people randomly selected from the attendees of a rehabilitation center and a narcotics anonymous community in Mashhad.

Inclusion and exclusion criteria

The participants in this study included male individuals who were living in Mashhad and had a 3-
month history of drug withdrawal. Moreover, the investigated sample population had no experience of participation in the sessions of anonymous addicts and adolescent rehabilitation center. In addition, there was no report of narcotics in the cases after attending the sessions of anonymous addicts or the rehabilitation center.

Study design
A total number of 300 subjects were enrolled in the current study. The investigated participants were divided into two groups of rehabilitation center (group A) and narcotics anonymous community (group B) including 150 individuals in each group. Individuals were regularly present at the meetings of anonymous addicts and a rehabilitation center. The data collection tool was a researcher-made questionnaire consisting of two parts of the demographic information section and a sustained remission from drug addiction section. The reliability of the method was measured using Cronbach’s alpha coefficient, which indicated a high value of 0.97.

Subsequently, the researcher presented a letter of introduction to the supervisors of the sessions of the anonymous addicts, as well as the head of the drug addicts rehabilitation center to obtain consent from the investigated samples. The questionnaires were then distributed among the participants. After collecting the questionnaires, data were entered into the related software for statistical analysis.

The descriptive data in the current study addressed the information related to the population, percentage, mean, and standard deviation. Normal distribution was measured to use the parametric or non-parametric statistical indicators. Data were analyzed using SPSS software (version 24). P-value less than 0.05 was considered statistically significant.

Ethical Considerations
The study protocol was approved by the Ethics Committee of Mashhad University of Medical Sciences, Mashhad, Iran. In line with the research ethics principles, informed consent was obtained from all the patients and all of them were assured that their information will remain confidential. The participants were ensured that they could withdraw the study at any time.

Results
Based on the obtained results of our study, the majority of addicts were in the age range of 36-45 years. Table 1 presents other demographic data in rehabilitation center and narcotics anonymous community. In group A, 74% of people had a history of addiction. Among them, the highest frequency was related to fathers (20.7%) and friends (26.3%). In group B, the duration of the drug withdrawal was 3, 4, 5, and 6 months in 30.5, 37.1, 17.1, and 14.3% of participants, respectively. The duration of the drug withdrawal was above 6 months in only 1% of subjects. In group B, the duration of the drug withdrawal was 3, 4, 5, and 6 months among 18, 17.3, 18, and 28.7% of participants, respectively. Moreover, the duration of the drug withdrawal was above 6 months in 18% of subjects. The distribution of absolute frequency and associated frequency of dependent subjects according to methods of detoxification is shown in Table 2. About 58% of cases used non-pharmacological methods. In this regards, group therapy, family therapy, behavioral therapy, individual counseling, and hypnosis were performed for 36.4, 18.2, 12.5, 27.3, and 5.7% of patients, respectively. The majority of subjects (80%) attend the sessions regularly. About 81.3% of cases had a history of addiction. Among them, the highest frequency was related to father (31.1%) and friends (39.8%). Increased self-esteem and reducing the desire to consume drugs were observed in 98% and 94.7% of cases, respectively. Comparison of two groups in term of slips in addiction recovery is illustrated in diagram 1. As shown in Table 3, the frequency of slips in addiction recovery was 33.3%. As a result, there was a significant difference between the two groups in terms of slips in addiction ($\chi^2 = 0.08; P < 0.001$).

During the first, second, and third months, addiction relapses were observed in 40.7, 48.4, and 10.9% of patients, respectively. The frequency of
the addiction relapses in groups A and B were 70% and 42%, respectively. The sustained remission from drug addiction among the two groups is shown in Table 4. The comparison of the two groups revealed a significant difference in term of sustained remission from drug addiction ($\chi^2 = 0.08; P < 0.001$).

### Table 1. Frequency of demographic data in rehabilitation center (A) and narcotics anonymous community (B)

| Variables          | Group A | Group B |
|--------------------|---------|---------|
|                    | Number  | %      | Number | %     |
| Age                |         |        |        |       |
| 15-25              | 20      | 13.3   | 18     | 12    |
| 26-35              | 45      | 30     | 44     | 29.3  |
| 36-45              | 34      | 28.7   | 47     | 31.4  |
| 46-55              | 27      | 18     | 27     | 18    |
| +55                | 51      | 10     | 14     | 9.3   |
| Marital status     |         |        |        |       |
| Married            | 77      | 51.3   | 85     | 56.7  |
| Single             | 28      | 18.7   | 26     | 17.3  |
| Divorced           | 36      | 24     | 31     | 20.7  |
| Widow              | 9       | 6      | 8      | 5.3   |
| Occupational status|         |        |        |       |
| Unemployed         | 20      | 13.3   | 27     | 17    |
| Labor              | 34      | 22.7   | 30     | 20    |
| Employee           | 45      | 30     | 40     | 26.7  |
| Self-employed      | 51      | 34     | 53     | 35/3  |
| Educational level  |         |        |        |       |
| Illiterate         | 4       | 2.7    | 2      | 1.3   |
| Under high school  | 47      | 31.3   | 66     | 44    |
| High school        | 58      | 38.7   | 47     | 31.3  |
| Academic           | 41      | 17.3   | 31     | 14    |
| Type of drug       |         |        |        |       |
| Opium              | 37      | 24.7   | 37     | 24.7  |
| Sap                | 36      | 24     | 34     | 22.7  |
| Heroin             | 35      | 23.3   | 11     | 7.3   |
| Cannabis           | 2       | 1.3    | 8      | 5.3   |
| Grass              | 18      | 12     | 6      | 4     |
| Crystal            | 14      | 9.3    | 31     | 20.7  |
| Crack              | 8       | 5.3    | 13     | 8.7   |
| Other              | 0       | 0      | 10     | 6.7   |
| Income             |         |        |        |       |
| Low                | 103     | 68.7   | 101    | 67.3  |
| Moderate           | 40      | 27.6   | 35     | 23.3  |
| High               | 7       | 4.7    | 14     | 9.3   |

### Table 2. Distribution of absolute frequency and associated frequency of dependent subjects according to methods of detoxification

| Detoxification Methods                     | narcotics anonymous community participants | Rehabilitation center participants |
|--------------------------------------------|---------------------------------------------|-----------------------------------|
| Number | %    | Number | %    |
| Methadone Therapy                          | 61   | 40.7   | 44   | 29.5  |
| Naltrexone Therapy                         | 4    | 2.7    | 2    | 1.3   |
| Admitted drug addiction treatment center   | 51   | 34     | 84   | 55.7  |
| Quick detoxification                       | 17   | 11.3   | 11   | 4.7   |
| Super fast detoxification                  | 13   | 8.7    | 9    | 6     |
| Other methods                              | 4    | 2.7    | 0    | 0     |
| Total                                      | 150  | 100    | 150  | 100   |
Table 3. Number of Slips in addiction in rehabilitation center (A) and narcotics anonymous community (B)

| Groups            | Group B |          | Group A |          |
|-------------------|---------|----------|---------|----------|
|                   | Number  | %        | Number  | %        |
| Once              | 23      | 46       | 15      | 12.1     |
| Twice             | 25      | 50       | 45      | 36.3     |
| Three times       | 2       | 4        | 50      | 40.3     |
| More than 3 times | 0       | 0        | 14      | 11.3     |

Diagram 1. Comparison of rehabilitation center and narcotics anonymous community in term of the causes of slips

Table 4. Sustained remission from drug addiction among rehabilitation center (A) and narcotics anonymous community (B)

| Duration          | Group B |          | Group A |          |
|-------------------|---------|----------|---------|----------|
|                   | Number  | %        | Number  | %        |
| Three month       | 4       | 8        | 64      | 51.6     |
| Four months       | 1       | 2        | 24      | 19.4     |
| Five months       | 5       | 10       | 10      | 8.1      |
| Six months        | 17      | 34       | 17      | 17.3     |
| More than six months | 20 | 40       | 0       | 0        |

Discussion

Based on the obtained results of this study, slips in addiction were higher among individuals in the rehabilitation center, compared to those in narcotics anonymous community groups. Moreover, long-term sustained remission from drug addiction was observed in attendees to narcotics anonymous community group in comparison with those in the rehabilitation group.

Based on the obtained results of a similar study by Ghodrati et al. conducted in Iran, the mean age of addicts was 36.8 years, and similar to the current study, the majority of subjects were married and self-employed. The majority of patients in the present study were within the age range of 36-45 years.

The majority of subjects in the present study used opium while other similar studies conducted in Iran revealed crystal abuse. According to another study performed by Alaghemandan et al. in Iran (Isfahan), addiction was highly prevalent among men, married people, and subjects with the educational level of high school or lower, which
were in line with the obtained results of the present study. Similar to the obtained results of the present study, opium abuse had the first rank in the mentioned study while heroin abuse had the first rank in a study conducted by Motozaker.12

As reported by Nastizayi et al., the main motive for addiction is having addicted friends, which raises the severity of addiction.13 Likewise, the obtained results of the present study revealed that having an addicted friend is the major motive for addiction. Referral to drug rehabilitation centers can be considered as a motivational factor and provide appropriate social support for addicted individuals.14 Based on the findings of the current study, 20% of subjects were unemployed. Tarrahi et al. reported that unemployment was an important factor in drug abuse14 while the majority of addicts were self-employed in the current study. An appealing resource for addiction recovery is having mutual help groups. These sources are available and free, which can be used at any time of treatment. Moreover, these sources provide the conditions for recovery support among people, who cannot attend formal treatment.15

We showed that the slips in addiction were lower in attendees of narcotics anonymous community group, compared to those in the rehabilitation center. Furthermore, long-term sustained remission from drug addiction was observed in narcotics anonymous community group. Based on the obtained results of a study conducted by Ghodrati et al., addiction withdrawal was during 6-12 months in 38% of subjects.5 Likewise, remission from drug addiction was observed in 40% of subjects in the present study. Due to statistical differences between two groups, referral to narcotics anonymous community can play a more effective role in sustained remission from drug addiction. Therefore, attendance to the sessions of anonymous addicts can be a useful way to continue the withdrawal of addiction after detoxification period.

In the present study, attendance to anonymous addicts programs can be applied as readily available, easily accessible, and no-cost resources for addicts. Some evidence showed an association between early involvement and occupation in recovery activities and better psychosocial outcomes, reduced health care costs, and persistence in drug withdrawal.16 However, participants do not always fully attend the sessions and some cases may drop out. As a result, health care providers should present a proper program for social workers to reduce the likelihood of substance abusers.

Conclusion

As the findings of the current study suggested, the rates of recurrence and slips were higher among addicts referring to a rehabilitation center, compared to those in narcotics anonymous community groups.

Conflicts of Interest

The authors declare that there is no conflict of interest in this work.

Acknowledgments

The present study was derived from a dissertation defended at the Islamic Azad University, Tehran, Iran. we would also like to extend my gratitude to the staff at the research units and all those who helped us in this research.

Authors’ Contribution

Conseptulization, Z.A. and F.S.; Methodology, Formal Analysis, Writing - Review and Editing, Z.A.; Supervision, F.S.

All authors read and approved the final manuscript and are responsible about any question related to article.

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