Original Research

Exploring the Contributing Factors of Substance Abuse among Individuals Receiving Treatment at the Methadone Maintenance Therapy Clinic in Zahedan, Southeastern Iran

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Abstract

Background: Drug use as a social and unacceptable habit in all human societies has involved many men and women, especially from teenage to middle age. According to the studies conducted in this field, various personal, social and family factors are effective in the tendency to use drugs. This inquiry sought to resolve the precipitating dynamics of substance misuse through the views of individuals receiving treatment at the Baharan Zahedan Hospital's Methadone Maintenance Therapy (MMT) clinic during the calendar year 2023.

Methods: This descriptive-analytical study was conducted on 390 people undergoing substance abuse treatment who utilized the services of the MMT clinic of Baharan Hospital in Zahedan city in 2023. The research instruments employed in this investigation comprised a comprehensive demographic profile questionnaire and standard questionnaire are effective factors in addiction tendency.

Results: We found that individual factors were the primary cause of addiction, with cultural deprivation being the most significant factor. We also found a significant relationship between age and individual factors, with younger patients scoring higher on individual factors. Additionally, education level was found to be a significant predictor of addiction tendency, with higher education levels associated with higher scores on individual factors. No significant relationships were found between addiction tendency and marital status, employment status, underlying disease, or type of substance consumed.

Conclusion: Drug addiction is influenced by various personal, family and social factors. Public and private institutions and organizations can reduce the tendency to drugs among young people by facilitating and providing educational services, creating awareness, creating employment and reducing the atmosphere of insecurity.

Keywords: Drug abuse, Substance abuse, Zahedan.

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Introduction

Substance use disorders have become a major concern, causing a wide range of problems that affect many areas of life, including work, relationships, and the law (1) and along with malnutrition and environmental pollution, unfortunately It has affected all industrial and non-industrial societies (2). It is rare to find a phenomenon that has threatened human societies like addiction (3). Addiction, due to its progressive nature, endangers the health of the addict in all aspects of life and affects the functioning and dynamics of families (4). At present, substance abuse is a massive challenge that affects many areas of life, including people's health, communities, money, and customs. Even though many people think opioid use is wrong, it's a problem that affects people from all kinds of backgrounds in a big way. The World Health Organization says it's a global worry, and governments are spending a lot to try to stop it. (5). All over the world, the number of drug users is estimated to be around 190 million people. Official statistics indicate that in this country, the number of drug addicts ranges from 1.2 to 2 million people, with an average age of 18 years. Furthermore, approximately 11 million people in the country's population are struggling with drug addiction. Those around them are also affected by the problem of addiction (6-7). There are several theories about the causes of addiction, which can be broadly categorized into three groups. The first category posits that the availability of these substances leads people to use them. The second category attributes addiction to crises and social disturbances, while the third category suggests that psychological readiness and personality traits are the primary causes (8). Basically, it is believed that social and environmental determinants exert considerable influence on the first experience of consumption, while individual factors play a more important role in addiction disorders (9). As far as demographic variables are concerned, gender and age are significant predictors of addiction. Notably, boys are more likely to initiate cigarette, alcohol, and illicit drug use at a younger age, particularly during early adolescence. However, research suggests that middle adolescence is a critical period, with boys reporting more problems related to substance abuse, although gender differences tend to diminish in late adolescence (10). Moreover, the younger the age of first substance use, the greater the risk of developing addiction and substance use disorders in adulthood (11). Given the significance of this issue, understanding the factors contributing to substance abuse has been a pressing concern for policymakers, individuals struggling with addiction, and their families. This issue is particularly pertinent in developing and young countries, such as Iran, where there is a growing need for a healthy and productive workforce. As a result, it is essential to address this issue to ensure the well-being of the population (12). The main goals foreseen in this program include prevention through cultural promotion, reducing the social acceptability of drugs, treating addicts and interventions in crises. Combating this phenomenon requires a detailed understanding of all economic, cultural, social and political aspects in order to be able to step more effectively in the direction of addiction control. It is placed in terms of easy access to drugs, it is completely felt to advance preventive programs and policies, and moreover, the void of such projects is noticeable, for this purpose, in this study, research on the causes of drug abuse in Zahedan city. The point of view of these people is discussed by focusing on individual, social and environmental causes.

Methods

This descriptive-analytical study was conducted on 390 people undergoing drug abuse treatment who visited the MMT clinic of Baharan Zahedan in 2023. The sampling method was available. According to the various reasons for the tendency to addiction, with P=0.5 and using a confidence level of 95% (α=0.05) and a desired precision level of d=0.05, calculations indicated that a minimum of 390 individuals were required to achieve statistically reliable results.

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Inclusion criteria; all drug abusers referred to the addiction treatment center of Baharan Hospital in Zahedan who were willing to participate in the study. Individuals who declined to participate or failed to fully complete the survey instrument were excluded from the study. The data collection tool in this study includes two questionnaires, demographic information and a standard questionnaire of factors influencing addiction.

After explaining the project's objectives and obtaining informed consent, a questionnaire was administered to collect data and measure the research variables. The questionnaire included questions about demographic characteristics, substance use history, and physical and mental health status, as well as a 18-item scale assessing factors influencing the tendency to addiction. This scale was designed to identify factors related to addiction from the patient's perspective in various social, environmental, and family contexts. Each question was scored on a 5-point scale. The questionnaire was structured to assess different domains, with each domain comprising multiple questions that were summed to yield a total score for that domain. The validity and reliability of this questionnaire had been previously established in a study by Naghshi et al. Specifically, Cronbach's alpha coefficients were reported as follows: 0.69 for individual factors, 0.74 for family and environmental factors, 0.77 for social factors, and 0.76 for the total scale (13). Data were processed and analyzed using the SPSS software, version 20, and summarized in a descriptive format (prevalence, percentage, mean and standard deviation) and inferential statistical tests (Fisher and chi square) were performed at a significance level of 0.05.

Results

A total of 390 patients who attended the MMT clinic of Baharan Psychiatric Hospital in 2023 were included in the study. The mean age of the sample was 38.43 years, with a standard deviation of 9.93 years. The average length of time participants had been using substances was 80.52 months, with a standard deviation of 48.31 months (Table 1).

The causes of tendency to addiction were investigated in three components: individual, family-environmental and social reasons. Each component consisted of 6 items that assigned a minimum of 6 and a maximum of 30 points. Individual factors had the maximum score and social factors had the minimum score between variables (Table 2).

In the component of individual factors, cultural deprivation got the highest score and increased self-confidence got the lowest score. In the component of family factors - the unsupervised environment of schools and universities, the highest score was given and the encouragement of friends received the lowest score. In the component of social factors, variety and easy access to drugs got the highest score and lack of sports and recreational facilities got the lowest score.

The results of Spearman's correlation coefficient statistical test showed that there was a significant indirect relationship between age and individual factors. So that with the decrease in age, the score of the component of individual factors increased (P=0.047) (Table 3).

The results of the Mann-Whitney statistical test showed that there was no significant difference in the score of reasons for the tendency to addiction between men and women. The results of the Kruskal-Wallis statistical test showed that there is a significant relationship between the education level of a person and the individual factors of addiction tendency (P=0.027). So that people who had education higher than diploma compared to others, allocated the most points to individual factors of tendency to addiction. Also, there is a significant relationship between mother's education and addiction tendency score in the components of individual and family-social factors. Thus, in the component of individual factors, the mother's secondary education and higher than diploma got the highest score, and in the family-environment factor, the highest score

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was given to mother's education higher than diploma. The results of the Kruskal Wallis statistical test showed that there is no significant difference between the marital status and the score of the components of the causes of addiction. The results of the Kruskal Wallis statistical test showed that no significant relationship was found between the score of each component and the individual's employment status. The results of the Mann-Whitney statistical test showed that the underlying disease and the causes of tendency to addiction had no significant relationship.

The results of the Kruskal-Wallis statistical test showed that there is no significant relationship between the history of psychiatric illness and the score of each of the components of addiction tendency, and there is no statistically significant relationship between the causes of addiction tendency and the type of substance consumed. Also, the results of Spearman's correlation test showed that there is no significant relationship between the duration of drug use and the components of addiction tendency.

Discussion

Various factors such as the existence of financial poverty, family problems, marital disputes, the existence of inappropriate patterns for assimilation and finally the problem of unemployment can be considered as one of the main factors of the tendency to addiction, so that the theoretical background of the study shows that there are two categories of individual and social causes. They are considered one of the main factors of addiction (14). This research was undertaken to explore the underlying reasons for substance misuse from the perspective of individuals who sought treatment at the MMT clinic of Baharan Zahedan Hospital in 2024. The findings of this study revealed that personal factors were the most significant contributor, while social factors were the least influential. The study of Molavi et al. (14) in 2004 on the factors influencing the tendency of young people to use drugs showed that individual factors are more effective than other factors on the tendency of young people to become addicted, as well as what we found in our study. In Motyka's study et al. (15) also in 2022 in Canada, environmental and social factors played a role in the impact of starting drugs, especially in young people, which is in line with the present study.

The findings of this research demonstrated that there is a significant indirect relationship between age and individual factors. So that with decreasing age, the score of the component of individual factors increased. Age is one of the factors that has a great influence on the type of behavior, people in certain age periods have different personalities. Each of these age periods provides a context for performing a specific behavior. One of the most sensitive and important age periods is adolescence and youth, which starts from about 20 years old and continues until about 42 years old. At this stage, a person has characteristics such as independence, showing off, seeking opposition, seeking excitement, being influenced by the group of friends, etc. As a result, there is a suitable ground for his deviation. Data shows that age groups are not equally exposed to addiction.

The findings of a previous study conducted by Shayesteh et al. (16) revealed an inverse relationship between age and addiction, with older individuals exhibiting lower levels of addiction, and this trend is consistent with the results of the current investigation. Furthermore, no significant difference was found in the scores of the reasons for the tendency to addiction between men and women. This finding is consistent with the general trend observed in most societies, where women tend to exhibit less deviant and criminal behavior than men. In Iran, specifically, the prevalence of addiction is higher among men than women, with men accounting for approximately 95% of addicts and women accounting for 5%. Additionally, the number of male drug addicts in prison is higher than that of female drug addicts, likely due to the fact that many male drug addicts use drugs in private settings, making their addiction less visible. In contrast, women are less likely to be addicted, as evident from the data collected from

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the MMT clinic of Baharan Zahedan Hospital, where only 31 women were referred compared to 359 men. These findings are consistent with the study of Shayesteh et al., which found no difference in the causes of addiction tendency between men and women across various aspects. However, a study by Terry-McElrath and colleagues (17) in 2009 in the United States found that gender differences play a role in addiction tendency, contradicting the findings of the present study. Nevertheless, the results of the present study suggest that, in the Iranian context, gender does not appear to be a significant factor in the tendency to addiction.

The results of this study showed that there is a significant relationship between a person's level of education and individual factors of addiction tendency. The study of Shirzad et al.(18) in 2009 showed that there is an inverse correlation between the level of education and drug addiction among women as well as men. With an increase in the level of education, the number of addicts decreases, which can reduce poverty and increase hope for the future and self-confidence, and improve the cultural level of a person and make the social environment around a person safer. Statistics show that the education of most female drug addicts is at the level of high school, and it also seems that with increasing awareness of the effects and consequences of these substances and their intellectual and practical activities, the individual's tendency towards deviant behaviors such as addiction decreases.

Also, there was a significant relationship between mother's education and addiction tendency score in the components of individual and family-environmental factors. Amiri et al.'s study (19) in 2015 has found that parental illiteracy has no significant impact on the likelihood of young people returning to addiction, and this finding is not supported by the results of the current study. The growth of the cultural level and the necessary training to better control children in the field of dating and also better supervision in the upbringing of children have a deterrent role in the tendency to addiction in children, which is consistent with the results of the present study. In the study of Amiri et al. (19), only the illiteracy of the parents was considered, and other levels of literacy, as well as the examination of the mother's education alone, were not considered.

Also, there was no significant difference between the marital status and the score of the components of the causes of addiction tendency. The study of Kazemi et al.(20) in 2016 in Qazvin showed that most of the people who had addictions were married, since the statistical population investigated in the study was elderly people, naturally, younger people were not considered in this study. Regarding the marital status, the focus was on the difference in the causes of the tendency to addiction in single and married people, which did not exist.

The findings of the current investigation revealed that no statistically significant association was observed between the scores of each component and the participants' occupational status. Conversely, a study by Molavi et al. (14) in 2004 reported a significant correlation between employment status and substance use tendencies. Although the current study's results showed that the majority of respondents were unemployed, which is consistent with the findings of Molavi et al. (14), no differences were found in the impact of individual and social components on respondents with varying occupational statuses. Unemployment creates a favorable environment for addiction by providing contaminated associations. Research shows that in women, job dissatisfaction and the pressure caused by it causes discomfort and fatigue and forces her to escape from these problems. He turned to the materials. Nowadays, due to various reasons, the task of housekeeping and taking care of household affairs is considered by some people as a worthless task that people without job skills spend their time on. This thinking reduces women's satisfaction with the role of housewife, so that they consider it a repetitive and boring behavior, so they tend to use drugs to get rid of its side effects.

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The findings of the current investigation revealed that no correlation was found between the presence of a psychiatric illness history and the score of each component of addiction tendency. The study of Rasoli (21) and colleagues considers depression and some mood changes of the depressed personality to be effective factors in the tendency to addiction. Most of the people who are prone to addiction are withdrawn, timid and shy people who do not show the necessary flexibility in social interactions. In the present study, it seems that the sample collected from people with psychiatric illness and history, especially depression, is insufficient. But finally, according to the comparative results, there is a difference in the effect of various components on people with and without psychiatric illness and history.

According to the results, no relationship was found between the causes of addiction and the type of substance consumed. The study of Mirbagheri et al. (22) in 2018 showed that there is a significant relationship between the use of industrial drugs and the tendency to addiction, and the results of this study are not the same as the results of the present study. In the region of Sistan and Baluchistan, due to the sensitive geographical location and bordering Afghanistan as a large producer of opium, the main addiction in this region and according to the patients who visit the MMT center of Baharan Zahedan Hospital, contrary to the Mirbagheri study.

Also, there was no significant relationship between the duration of drug use and addiction tendency components. The study of Molaei Zarandi et al.(23) in 2019 showed that there was a significant relationship between the tendency to use drugs and the duration of drug use, and the result of this study is not the same as the results of the present study.

Conclusion

Addiction and its impact on human resources are of significant concern, as one of the most vulnerable demographic groups affected by substance abuse or at risk of developing it. The alarming statistics on drug abuse indicate its increasing prevalence in various societies, including Iran, suggesting that the phenomenon of addiction is likely to escalate in the coming decades. Consequently, social science researchers and practitioners are actively seeking solutions to address this problem. To this end, numerous studies have been conducted to investigate the causes and factors contributing to addiction, and the majority of these studies, including the present one, have identified individual and social factors as playing a crucial role in either increasing or decreasing addiction. These findings underscore the need for a comprehensive approach to address the complex issue of addiction.

Suggestions

Improving the level of people's knowledge about the characteristics of narcotic drugs and the adverse consequences of their use through the implementation of preventive programs through the media, coordinating councils to combat narcotic drugs in provinces and cities, and anti-narcotic police. Due to the misunderstanding of many consumers who consider drugs to relieve physical pains and obtain multiple pleasures, the correct process and mechanism of the action of drugs on a person should be explained in broad dimensions. Preventing any kind of conflicts and conflicts in the family, which causes the children to be deprived of peace and comfort at home and will become a model for them, as a result of which the person will suffer mental and emotional problems and will resort to addiction to escape from loneliness and problems.

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All authors conceptualized the study objectives and design.

Ethical Consideration:

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Tables:

Table 1: Demographic characteristics of patients

Variable	Variable State	F (%)
Sex	**Male**	31 (7.9)
	Female	359 (92.1)
Education	**Illiterate**	73 (18.7)
	Elementary	95 (24.4)
	Guidance	77 (19.7)
	High School	51 (13.1)
	Diploma	75 (19.2)
	Higher	19 (4.9)
Father's education	**Illiterate**	36 (9.2)
	Elementary	99 (25.4)
	Guidance	69 (17.7)
	High School	101 (25.9)
	Diploma	69 (17.7)
	Higher	16 (4.1)
Mother's education	**Illiterate**	71 (18.2)
	Elementary	110 (28.2)
	Guidance	67 (17.2)
	High School	70 (17.9)
	Diploma	57 (14.6)
	Higher	15 (3.8)
Marital Status	**Single**	45 (11.5)
	Married	321 (82.3)
	Absolute	17 (4.4)
	Deceased Wife	7 (1.8)
Employment Status	**Employee**	3
	Worker	83 (21.3)
	Freelance Job	86 (22.1)
	Housekeeper	25 (6.4)
	Unemployed	193 (49.5)
Underlying Disease	**Yes**	28 (7.2)
	No	362 (92.8)
History of psychiatric illness	**Yes (under treatment)**	29 (7.4)
	Yes (not under treatment)	8 (2.1)
	No	353 (90.5)
Type of narcotic used	**Cigarettes**	21 (5.4)
	Opium	118 (30.3)
	Opium (Shire)	56 (14.4)

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	Heroin	_
	Pipes	12 (3.1)
	Nas	_
	Other	18 (4.6)
	Cigarettes + Opium	67 (17.2)
	Cigarette + Opium	23 (5.9)
	Theriac+ Opium	52 (13.3)
	Opium + Cigarettes + Nas	23 (5.9)

Table 2: Comparison of the distribution of the frequency of the causes of tendency to addiction in the studied population

Minimum	**Maximum**	**SD**	**Mean**	**Descriptive statistics / Components**	
9	30	4	19.11	**Individual Factors**	**Causes of addiction to drugs**
7	30	3.74	17.92	**Family-Environmental factors**	
7	28	3.52	16.45	**Social Factors**	

Table 3: Examining the relationship between the causes of addiction and the person's age

P	**Correlation Coefficient**	**Variable**	
0.047	-0.096	**Individual Factors**	**Age**
0.46	-0.037	**Family-Environmental factors**	
0.58	-0.028	**Social Factors**	

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