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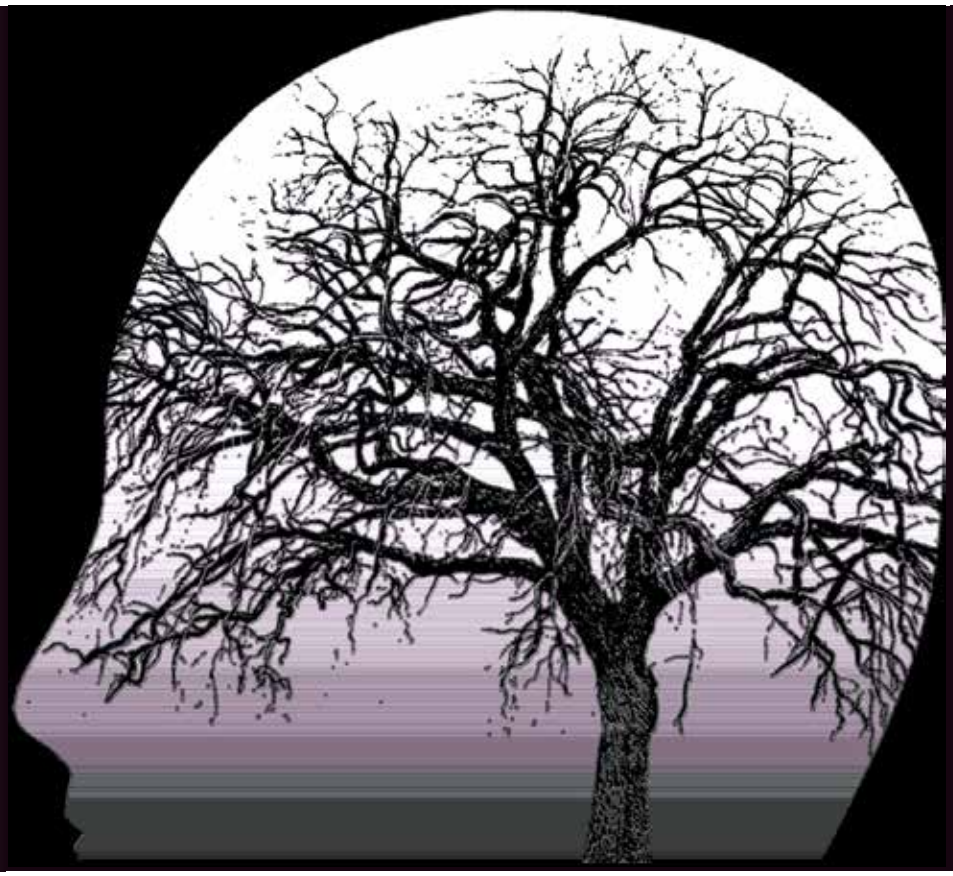

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Psychological needs of men under methadone maintenance treatment: A mixed method study

Amir Jalali [1], Ali Hassanpuor Dehkordi [2], Tayebeh Mahvar [3], Masood Moradi [4], and Mohammadreza Dinmohammadi [5]

1 Psychiatric Nursing Department, School of Nursing and Midwifery, Prevention Substance Abuse Research Center, Kermanshah University of Medical Sciences, Kermanshah, Iran.
2 Nursing Department, School of Nursing and Midwifery, Medicinal Plants Research Center Shahrekord University of Medical Sciences, Shahrekord, Iran.
3 Nursing Department, Kermanshah University of Medical Sciences, Kermanshah, Iran.
4 Prevention Substance Abuse Research Centre, Kermanshah University of Medical Sciences, Kermanshah, Iran.
5 Nursing Department, School of Nursing and Midwifery, Zanjan University of Medical Sciences, Zanjan, Iran.

Summary

Background: The psychosocial needs of participants who are responding to the methadone maintenance treatment method can be considered an important issue in the healing process. This study has had the aim of determining the psychosocial needs of patients who were receiving methadone therapy. Methods: This was a simultaneous mixed method study. On the qualitative side of the study, using the snowball sampling method, 19 male clients who were interested in participating in the study with at least one month of methadone therapy were selected, after which in-depth, semi-structured individual and face-to-face interviews were conducted. On the quantitative side, a descriptive study was carried out; to initiate the study, 136 male clients from 12 substance abuse treatment clinics in Kermanshah City located in the west of Iran were selected by applying the convenience sampling method and analysed using the Basic Needs Satisfaction scale. The content analysis method was used to analyse qualitative data, whereas quantitative data were analysed by SPSS 18 software. Results: The qualitative results comprised 15 subthemes and 5 main themes. The main categories included the need for support, the need for tranquillity, fear of ostracism, inadequate self-esteem and a vague self-image. The quantitative results indicated dependence on methadone, together with a weak sense of self-determination and competence; these findings were consistent with the qualitative results. The main limitation of the study was disagreement by some participants over the issue of recording interviews. Conclusions: The results showed that drug-using participants need the support of their family and community during treatment to satisfy their psychosocial needs.

Key Words: Content analysis; Methadone Maintenance Treatment; mixed method study; psychosocial needs

1. Introduction

In the field of medicine the word 'addiction' was first used in the early years of the twentieth century, in referring to substance abuse. This condition is an impulsive and mandatory chronic recurrent disorder. Addiction is a primary disease, with multiple and diverse manifestations in social, psychological, spiritual, and economic life. It is a progressive condition that results in participants' inability to control drug use [1]. Moreover, drug dependence is a chronic disease involving recurrent relapses. Relapse first appears when various psychological, social and environmental factors interact, and this leads to its onset and persistence. Like other mental illnesses, drug dependence stems from several factors, which come together to determine the process of onset, and a scientifically accredited course of treatment should be chosen to help

Corresponding author: Mohammadreza Dinmohammadi, BSc, MSc, PhD, Assistant Professor, Nursing department, School of Nursing and Midwifery, Zanjan University of Medical Sciences, Zanjan, Iran.
Phone: +98 9123411908; E-mail: mdinmohammmad@yahoo.com

these patients. As this requirement is often neglected, customized methods of addiction treatment have not yet shown their potential effectiveness, and even now that accredited treatment methods are available, the success of one-year treatment has been reported as being as low as 30 to 50% [8]. Because craving is a common problem, it can be a main factor in determining some mental and physical problems, and this concept could play a leading role in relapse [12].

Research studies have shown that drug use in men and women is associated with high-risk, inappropriate social behaviours, in some cases incurring forms of legal punishment [9]. Havlicek, Garcia and Smith stated that the use of drugs in childhood and adolescence will lead to several emotional, mental and behavioural problems for those running that risk [4]. Many drug users of alcohol, cocaine and morphine combinations encounter problems related to psychiatric disorders on admission to treatment [12]. Tot et al. wrote that 35% to 60% of drug users and drug-dependent individuals show some degree of antisocial personality, and abundant depressive symptoms [14]. In any case, to fully understand patients' psychosocial problems, their experiences should be reviewed [6]. In general, to understand the experiences of individuals in relation to various issues arising in human societies, the interactions and relationships between people ought to be studied [16]. The only method capable of examining different human issues in people's living environment, and exploring their experiences through their use of language, is the qualitative study approach [2]. Nowadays, in order to strengthen the effectiveness of qualitative research, the simultaneous combinational method is used, whereby qualitative research results are strengthened and completed by those of simultaneous quantitative research [13]. In this study, in order to explore the psychosocial needs of male drug users, the simultaneous mixed method was used. By understanding these needs, it became possible to draw up a useful rehabilitation plan for those patients.

2. Methods

2.1. Design of the study

Considering the study objective of exploring the psychosocial needs of drug-using participants, and given that the explanation of these needs can be expressed most concretely and tangibly in their own idiom, in this study, a simultaneous mixed method was used.

2.2. Sample

On the qualitative side of the study, 19 participants were selected by implementing the snowball sampling method. On the quantitative side of the study, 136 subjects were selected by applying the convenience sampling method in a group of self-introduced male drug users of different ages, depending on the type of drug used, while taking into account the cultural context of Kermanshah and the various different ethnic groups present in twelve substance abuse treatment clinics in Kermanshah city located in the west of Iran. The inclusion criteria were as follows: appropriate mental and physical condition at the time of interview, being motivated to complete the questionnaire, history of drug abuse, no history of mental illness or physical limitations, willingness to participate in the study, the ability to communicate well, willingness to sign the informed consent form.

2.3. Data collection

On the qualitative side, the main method of data collection was the use of an in-depth semi-structured interview relying on open-ended questions (Table 1). The original interviews with participants were done individually, face to face at different times of day (morning and evening) in the environment of public and private substance abuse treatment clinics that had been selected by the participants. After the participants had given their consent, the interviews were recorded; notes were taken during the interviews, while features such as tone of voice, intonation of words, laughing, crying and pauses in the speech of the participants became available through the recording process. The duration of interviews varied with individual participants, and they took the form of 30- to 50-minute sessions. Besides, the interviewer had full knowledge of the regional native language. During the interviews, in order to facilitate data collection, guiding questions were used. Lastly, doing the 19 interviews, data were saturated (there were 19 interviews in all, involving 14 drug users and 5 family members).

On the quantitative side of the study, the calculation of scores on the basis of the Basic Needs Satisfaction scale for each individual made use of a questionnaire comprising 21 questions and measuring psychological needs on three subscales of relatedness, competence and autonomy. This questionnaire has been used in various studies; in this particular inquiry, to ensure the reliability of the tool, the test-

Table 1. Main interview questions

1	In your opinion, what were the psychosocial experiences of the participants at times of addiction?
2	What measures can relax drug-using participants?
3	What are the effects of using drugs on the social and behavioural status of participants?
4	For participants, what problems may be caused by the use of drugs?
5	In your opinion, what are participants' needs at times of drug use?

retest method was used, producing a correlation coefficient of 0.86. To perform the quantitative side of the study, 136 self-introduced subjects with no history of mental illness and undergoing methadone maintenance treatment were selected by applying the convenience sampling method in 12 substance abuse treatment clinics. They were studied using the questionnaires described above (Part I included demographic characteristics and Part II contained 21 questions that explored basic psychological needs).

2.4. Data analysis

The conventional content analysis method was used to analyze data that belonged to the qualitative side. After each interview the researcher who was responsible listened a few times to the full recording, after which he/she transcribed the text of the interview line by line. It was then encoded. This procedure was implemented for all interviews. After encoding the texts of the interviews, the single codes used were classified according to their conceptual content. Lastly, appropriate categories relevant to the psychological needs of participants were found. The qualitative data were then transformed by SPSS v18 software, and analyzed statistically using ANOVA and the Kolmogorov Smirnov test.

2.5. Ethical Considerations

After providing a personal description of the study and its purposes, all the participants gave their written consent to taking part in the study and allowing the interviews to be recorded. They were all assured that each of the interviews would be listened to and recorded exclusively by the researcher, and that all their information would be kept confidential.

2.6. Qualitative study criteria

To ensure the accuracy and reliability of data, four criteria first proposed by Gubba & Lincoln (dependability, creditability, confirmed ability and transferability) were used [13]. The long-term familiarity of the researchers with the study sites strengthened the trust of the participants, while also helping to ensure that they had a good understanding of the study environment. The participants' reviews were used to confirm the accuracy of the data and the codes. Hence, after the encoding process, the interview transcripts were returned to the participants to verify the accuracy of the codes and their interpretations. In this connection, any encoded items that failed to reflect the views of the participants were changed. The fact of being able to draw on the experience of one of the researchers involved in the treatment of participants, as well as including the participants themselves in the verification process, was helpful in confirming the codes and their interpretations. Also, the sampling strategy, which covered a wide range of participants in terms of age, sex, type of drugs used, and route of substance use, as well as the availability of information from the parents and peers of participants and from the therapists involved in the treatment process, helped to increase the validity of data. In some cases, the texts of interviews were reviewed by the supervisors; in other words, in addition to the researchers, the extracted codes and categories were examined by several therapists and faculty members associated with the study topic, and a high degree of agreement was found, according to the results. To verify the transferability criterion, the findings were shared with a few drug users not participating in the study, and they too confirmed the importance of the findings.

3. Results

The results of the qualitative study took the form of 482 codes, 15 subcategories and 5 categories. The main categories included the need for support and the need for tranquillity, together with the fear of ostracism, inadequate self-esteem and a vague self-image (Table 2)

Table 2. Category and subcategory among males in MMT

Subcategory	Category
Feelings of helplessness	The need for support
Neglected by family	
Financial dependence	
Tension	Need for tranquillity
Reproaches from family and friends	
Family challenges	
Distrust of family and friends	Fear of ostracism
Antisocial behaviour	
Feelings of guilt	Inadequate elf-esteem
Remorse	
Feeling of being a burden	Vague self-image
Tendency to be isolated	

3.1. The need for support

The concept of the need for participants to be able to rely on support was frequently expressed in the data derived from the interviews. Qualitative analysis of the data showed that the participants who were receiving treatment had many problems. Many of the participants, for various reasons such as inappropriate behaviours by members of their social environment and by strangers, and disproportionate reactions by family members at times when drugs were being used, and even during treatment, feel loneliness and state that they are considered worthless and to be avoided by other individuals, the community itself and even by the members of their own family. In this respect, one participant said: "Addicts are miserable people; they are despised by all; God has forgotten them too. No one cares about you: 'What pain are you in?'; 'What's wrong with you?' They all see you as a useless person".

Another participant stated that: "At home, no one cares about me. They do not pay attention to me. They do not count on me. They put my food behind my room door. They eat together round a table. I have to go to the basement in my room".

A review of the data showed that participants, especially during treatment and again during withdrawal, require support and deserve attention from their family, relatives and the whole of society.

3.2. Need for tranquillity

Data analysis showed that the participants experienced a stressful life throughout their periods of drug use. Frequent use of drugs, inadequate physical and social status, impaired relationships with friends, relatives and family members, as well as the urgent need for drugs, together with physical and psychological problems caused by the continuing need for substance use, put the participants in a situation of continual stress and anxiety. In the recorded interviews many participants mentioned the stress and anxiety that were caused by their use of drugs, and by their inappropriate behaviours, which had been intended to earn the trust of acquaintances and friends, or even to earn money and win a sympathetic attitude from acquaintances, but actually resulted in further suffering and distress. In this respect, one participant said: "I am tired of myself, life and everything. I do hate myself. You must always lie; you are always begging, welching this, deceiving that, to get drugs and make yourself high. When you come back, you will realize how miserable you are. I always have to lie; it's always a matter of fight or flight with yourself".

Another participant said: "An addict is always anxious that others will notice he is using drugs; you always need to hide yourself from others, because you continuously want drugs. When going to a party, you should be afraid and anxious all the time, since others may know you've been on drugs"

The study data showed that tension in the family, various reactions by family members, and inappropriate behaviours of the patient are all seen as factors leading to participants having to suffer from anxiety, just when they need a quiet environment associated with confidence. In addition, patients who had been hoping to win the confidence of others as well as gaining continual family support, lied repeatedly, and so generated mistrust. In this connection, one patient said: "I always have to struggle at home. You are re-

buked all the time: 'When will you try withdrawal?' 'You have no efficiency'. My mother always defends me; it always ends in fighting and crying."

Another participant said: "Whatever is missing in the house, everybody says, 'He has stolen it.'; 'He has taken it.' Home is like hell. You are always treated as a thief and a liar. You would like to die to get rid of this pain and misery".

3.3. Fear of ostracism

The study data showed that, during their addiction, and even after addiction treatment and withdrawal, participants always feel lonely and tired for several reasons. There is the inappropriate view taken by the community and the participant's family about drug addiction phenomena and addicts in general; there are the frequent lies spoken by participants, the fact that they remain unresponsive, their socially inappropriate actions and the many problems that participants create for themselves and their families at the time of their addiction, all leading to inappropriate thoughts and attitudes in those around them, especially in family members. Participants who use drugs are always experiencing the anxiety and stress that arise from losing the sympathy of their friends, relatives and families. The inquiry data show that, during times of drug use and even afterwards, participants live in fear of ostracism, and are always trying to satisfy their family and their friends, to the point of being accepted by them. The repeated use of drugs, repeated withdrawal, lying and still other reasons cause the abandonment of the participant by his/her own family. In addition, the use of drugs, society's negative attitudes towards drug use and the fact of being an addict can all cause reactions. This phenomenology induces the ostracism of the participant by friends, relatives and the family itself. On this topic, one participant said: "My family do not trust me anymore, because I have often lied to them... but it is their own fault. If I tell the truth – that I feel tempted to use, have used or now need money – they will throw me out of the house. They will beat me up. They quarrel with me. I often lie to avoid losing them".

3.4. Insufficient self-esteem

The study data show that the participants, due to their repeated periods of withdrawal and their relapses, the negative attitude of society and heavy dependence on drugs, unfortunately have a low level of self-esteem. The participants always consider themselves weak and incapable, and, due to their situation and their inability to stay off drugs, they are always asking others for help. Furthermore, the repeated administration of drugs, especially participants' constant need to rely on substance use, will cause a growing inability to perform ordinary functions and tasks, and they feel themselves increasingly powerless to do tasks or communicate with others. These physical and social limitations affect participants' self-esteem. In this respect, one participant said: "Whatever you want to do, drugs will prevent you. You just want to take drugs; but then physical pain and your hangover make you take more drugs. Whether it's night or day, you are taking drugs and smoking; from morning to night, you find yourself going to sleep. You cannot do a job; you can't do anything; you become a useless object".

3.5. Vague self-image

Due to frequent limitations and feelings of weakness and incapability, as well as low self-esteem, the participants in the study also have problems with their self-image; generally speaking, their self-image becomes weak and vague. The study data showed that the participants had a vague self-image, at all moments viewing themselves as powerless and helpless. In this regard, the behaviour of friends and acquaintances, as well as negative social attitudes, had a strong impact. On this topic, one participant said: "An addict is a useless being; others all look at him in the same way – family members, friends, relatives – all look on him as a parasite. Well, they are right; an addict is miserable. He will do anything to earn money…". Another participant said: "When you take drugs, you become a useless person. From morning until night, you have to stand or sit down with it. You cannot go to work, go to a party, or anything else. The worse thing is, you cannot get rid of drugs; as you don't have the guts".

3.6. The results of the quantitative study

Table 3 includes the demographic characteristics of the subjects who participated in the quantitative part of the study.

In relation to baseline mental status, the mean scores for aspects of autonomy, competence and relatedness were: 30.35 ± 2.04, 26.04 ± 2.75 and 33.1 ± 6.03, respectively. Thus, considering the standard score scale range, all were shown to be in poor condition. The Kolmogorov Smirnov test confirmed the normality of study data in autonomy, competence and

Table 3. Study subjects' demographic characteristics

	N (%)
Marital Status	
Married	45 (33.1)
Single	91 (66.9)
Job	
Self-employed	18 (13.2)
Employee	28 (20.6)
Unemployed	80 (58.8)
Retailer	10 (7.4)
Age group	
20-30	103 (75.7)
30-40	10 (7.4)
>40	23 (16.9)
Kinds of drug used	
Opium	101 (74.3)
Heroin	13 (9.6)
Asian crack (condensed heroin)	22 (16.2)
Age	30.5±6.6
Substance use (in years)	7.87±4.4
No substance use	3.60±0.9

relatedness (p >0.05).

Summing up the main results, the mean scores recorded on the autonomy dimension showed significant differences for: marital status (p <0.001), age groups (p <0.001), employment status (p <0.001) and type of drug used (p <0.001). The differences in the mean scores covering the competence dimension for: type of drug used (p <0.001) and occupational status (p <0.05) were significant, but they were below the significance level for the variables covering: age group (p> 0.05) and marital status (p> 0.05). The differences in the mean scores linked with marital status (p <0.05), age group (p <0.05), employment status (p <0.05) and type of drug used (p <0.05) were all significant (Table 4).

The differences in the mean scores on the autonomy dimension with reference to age group in two categories (age 20-30 & age 30-40, age 20-30 & age >40), as well as the job variable were significant in as many as five categories (employee & retailer, employee & self-employment, employee & workless, retailer & self-employment and self-employment & workless) but, in the case of the kind(s) of drug used, they were significant in only one category (opium & crack) (p <0.05) (Table 5).

Similarly, the differences in the mean scores on the competence dimension, with reference to job variables were significant in three categories (employee & self-employment, retailer & self-employment and self-employment & workless) but, in the case of the kind(s) of drug used, were significant in only one category (opium & crack) (p<0.05) (Table 5).

The differences in the mean scores on the relatedness dimension, with reference to age group were significant (p<0.05) in all of the following categories: (age 20-30 & age 30-40, age >40 & age 30-40 and age 20-30 & age >40); but, in the case of employment status and, again, with the kind(s) of drug used, they were significant in only one category: (employee & retailer) and (opium & heroin) (p<0.05) (Table 5).

4. Discussion

The main objective of this study was to account for the psychological needs of drug users; a simultaneous combinational method was used to implement the study. To enrich the results that were obtained, and raise the level of accuracy and reliability of the findings, the researchers carried out the qualitative side of the study while simultaneously performing the quantitative side. In addition to confirming and corroborating each other, the quantitative and qualitative sides of the study identified the shortcomings of the other side.

The study showed that male drug users experience problems of varying severity in psychological, social and behavioural areas. The results showed that,

Table 4. Analytic Statistical indexes

	Marital Status	Age group	Job	Kind(s) of drug
Autonomy	Married (31.6±1.88) Single (29.74±1.83) CI95% (1.189, 2.54)	ANOVAs F=63.66 Sig= .000	ANOVAs F=49.54 Sig= .000	ANOVAs F=10.045 Sig= .000
Competence	Married (31.6±1.88) Single (29.74±1.83) CI95% (-1.058, 0.93)	ANOVAs F=1.602 Sig= .205	ANOVAs F=4.84 Sig= .003	ANOVAs F=17.11 Sig= .000
Relatedness	Married (31.6±1.88) Single (29.74±1.83) CI95% (.054, 4.35)	ANOVAs F=73.02 Sig= .000	ANOVAs F=4.67 Sig= .004	ANOVAs F=3.49 Sig= .033

Table 5. Analytical Statistical Indexes (Bonferroni Test)

Relatedness	Competence	Autonomy	Categories	Variable
(-16.64±1.39) Sig 0.000 CI(-20.01, -13.27) (-3.07± 0.97) Sig 0.006 CI(-5.42, -0.73) (-13.56±1.59) Sig 0.000 CI(-17.42, -9.71)	(-1.53±0. 9) Sig 0.28 CI(-3.72, 0.66) (0. 23± 0.63) Sig 1 CI(-1.29, 1.76) (-1.76±1.03) Sig 0.273 CI(-4.37, 0.747)	(-2.44±0.486) Sig 0.000 CI(-3.62, -1.26) (-3.61± 0.34) Sig 0.000 CI(-4.43, -2.79) (1.17±0.56) Sig 0.11 CI(-0.17, 2.52)	Age20-30, Age 30-40 Age20-30, Age >40 Age>40, Age 30-40	Age group
(7.78±2.14) Sig 0.002 CI(2.06, 13.5) (2.5±1.75) Sig 0.93 CI(-2.19, 7.2) (3.02±1.27) Sig0.115 CI(-0.389, 6.44) (-5.28±2.28) Sig 0.136 CI(-11.4, 0.85) (-4.76±1.94) Sig 0.94 CI(9.97, 0.45) (0.515±1.51) Sig 1 CI(-3.54, 4.57)	(-0.68±0.97) Sig 1 CI(-3.28, 1.92) (2.43±7.95) Sig 0.016 CI(0.301, 4.56) (0.009±0.58) Sig 1 CI(-1.54, 1.56) (3.11±1.04) Sig 0.02 CI(0.33, 5.89) (0.687±0.88) Sig 1 CI(-1.68, 3.05) (-2.42±0.686) Sig 0.003 CI(-4.26, 0.58)	(2.96±0.52) Sig 0.000 CI(1.57, 4.36) (4.9±0.43) Sig 0.000 CI(3.76, 6.05) (2.96±0.31) Sig 0.00 CI(2.13, 3.8) (1.94±0.56) Sig 0.004 (0.45 , 3.44) (0.00±0.47) Sig 1 (-1.27 , 1.27) (-1.94±0.37) Sig 0.000 CI(-2.93, -0.96)	Employee, retailer Employee , self-employment Employee, workless Retailer, self-employment Retailer, workless Self-employment, workless	Job
(4.46±1.75) Sig 0.036 CI(0.22, 8.69) (-0.45±1.39) Sig 1 CI(-3.83, 2.93) (4.9±2.073) Sig 0.058 CI(-0.117, 9.94)	(1.49±0.73) Sig 0.126 CI(-0.27, 3.25) (3.31±0.58) Sig 0.000 CI(1.9, 4.72) (-1.82±0.86) Sig 0.109 CI(-3.92, 0.27)	(1.16±0.56) Sig 0.127 CI(-0.21, 2.52) (1.9±0.45) Sig 0.000 CI(0.82, 3.00) (-75±0.67) Sig 0.79 CI(-2.37, 0.87)	Opium , Heroin Opium , Crack* Crack , Heroin	Kinds of drug

Crack in Iran: contains condensed heroin ('Asian Crack')

due to their low self-esteem and inappropriate self-image, the study participants continued to experience fear and anxiety. These feelings were, to some extent, visible in their behaviour, so that the fear of ostracism by the family invariably caused inappropriate social behaviours, such as lying, behaviour associated with a sense of regret, and frustration. Reviewing several previous studies, it turns out that participants using drugs display unpleasant emotions, mental inconsistency and social pressure [7]. The results of the quantitative side of the study also highlighted the poor conditions that distinguishing their basic psychological status, in particular indicating that participants are in a weak to moderate situation in terms of autonomy, competence and relatedness.

In the present study we found that the participants, due to the nature of their drug abuse and inappropriate social behaviours, by following their commitment to substance abuse, will experience a condition of ostracism that is expressed by society and even by the participant's own family. Various studies on the research area of drug abuse have likewise emphasized drug-takers' status of undergoing ostracism and the need they feel to be accepted by their own family and by society [3, 12]. Various different studies lay stress on the importance and causes of problems such as painful emotional situations, self-loathing, loneliness, depression, feelings of helplessness, powerlessness and anger in drug-using participants, so much so that after persistent drug use these problems often affect their individual and social behaviours [6,15]. In addition to periods of drug use, during the process of relapse or during multiple relapses, which are among the long-term consequences of drug use, the self-efficiency skills of participants deteriorate, and, as a result, they experience negative emotions and feelings, and even lose the ability to recognize social norms. Also, Ramo found that the recurrence process is associated with mental disorders in adolescents, and that in adolescent participants the most important of these is depressive disorder [10].

Decline in self-esteem was one of the important data that emerged from the qualitative side of the study; those data can be compared with the quantitative findings, such as those affecting autonomy and competence. The quantitative results also suggested participants' low levels of autonomy and competence. All the study results went to show that at

times of drug use, as well as during their experience of unsuccessful attempts at withdrawal, participants invariably consider themselves helpless and dependent on others. The results of various studies have also stressed participants' low level of self-confidence [5, 12] and their feelings of helplessness and dependence on others [5, 11].

Our results showed that at times of drug use, as well as during their experiences of unsuccessful withdrawal periods, the participants always considered themselves helpless and dependent on others. The results of various other studies similarly emphasized participants' low level of self-confidence [5, 12] and their feelings of helplessness and dependence on others [5, 11].

Having only a vague self-image was another important category that emerged from the qualitative side of our study. The quantitative data likewise yielded low scores recorded for participants in the three areas of autonomy, competence and relatedness, while those three domains confirmed that participants faced the handicap of having an inappropriate mental image. The study data also showed that, for several reasons, such as one or more failures during periods of attempted withdrawal, inappropriate behaviours by members of the participant's family and the community, and inappropriate personal behaviours in society, to be considered along with numerous other problems, these participants viewed themselves as powerless, and had only a vague self-image, always coloured by a negative self-perception. The interviews held with many of the participants showed them thinking of drug addicts as useless parasites on their own community; this feature can be interpreted as a sign that these interviewees had a self-damaging self-perception. Studies conducted in various countries reported findings such as negative perception of self [5], aggression, withdrawal and depression [9, 14]. The results of our study showed that drug use had had a strong impact on self-perception and the body image of oneself in these participants, so much so that these effects are not only proved to be related to drug use, but also to participants' socially inappropriate behaviours directly linked to getting hold of drugs and taking them, to irresponsibility in the family and community contexts that leads to negative attitudes in members of society, especially in friends and family members. These negative attitudes severely damage the psychosocial status of these individuals.

Limitations

Our study had some limitations, too. A considerable number of participants refused to allow their interviews to be recorded; this turned out to be the most restrictive factor in this inquiry. In attempting to solve this problem, the researcher tried to convince the participants who were reluctant that each interview would only be heard exclusively by the researcher, and also that participants' information would be treated as strictly confidential. In some cases these reassurances solved the problem, but not in all.

5. Conclusions

Reviewing the results of our study, it can be stated that the participants, who were all taking drugs, were found to be experiencing several psychological, social and behavioural problems at some degree of severity, and for a variety of reasons, each of which may have affected the persistence of their substance abuse. The study results showed that, due to a variety of problems experienced by these participants during periods when they were taking drugs, various mental aspects appear to have been affected; this situation led to psychological and behavioural problems in these subjects. The study data showed that the participants who were experiencing several mental problems had feelings of low autonomy and competence arising from various causes. The participants showed a very low level of performance in establishing relationships with others, for various individual and social reasons, which, taken together, can create a vicious or defective cycle in their mental and behavioural condition.

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Contributors

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Conflict of interest

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