Addiction is ‘an attachment to an appetitive activity, so strong that a person finds it difficult to moderate the activity despite the fact that it is causing harm’ (Orford, 2001). It is considered an international problem that leads to serious harmful consequences for the individual, family and society. This self-destructive behaviour may be considered a leading cause of crime, violence and family problems, with costly medical and rehabilitative implications (Bartlett et al, 2013). Causes of addiction may stem from cultural, sociodemographic, social and personal factors (Hudak, 1993; Fergusson et al, 1995; McGee et al, 2000; Ibáñez et al, 2001; Orford, 2001; Sussman and Ames, 2001; Harford, 2003; Moewaka Barnes et al, 2003; Clarke, 2005). A descriptive study by Facundo and Pedrão (2008) analysed the personal and interpersonal risk factors of drug consumption among 175 marginal adolescents and young adults who were members of juvenile gangs in Mexico. The study reported that factors such as gender, age, mental health problems, relationships with friends with maladaptive behaviours and poor relationships with parents were associated with higher rates of drug consumption. The findings showed that older participants and those with mental health problems were more susceptible to substance abuse (Facundo and Pedrão, 2008).

A further qualitative study conducted in Iran of 32 male participants with substance abuse used a focus group method to identify factors that led to substance abuse (Nakhaee and Jadidi, 2009). They found that personal characteristics, family factors and social influence were the main factors that led to substance abuse.

According to Stoffel and Moyers (2004), individuals with substance abuse experience physical and/or psychosocial problems that interfere with occupational performance. Occupational therapists were found to be important practitioners in dealing with clients with substance abuse. Their role included identifying sensory stimuli that cause stress and how to manage that effectively in collaboration with clients and their significant others (Clarey and Felstead, 1990; Wegner, 2005; Davies, 2006; Gutman, 2006). These individuals are often referred to occupational therapy because the focus of this profession is on self-care, leisure and other productive activities through the use of purposeful activities as means of recovery (Buijsse et al, 1999).

Busuttil (1989) pointed out that occupational therapy serve clients with substance abuse by supporting them to improve their work and social skills, develop routines and habits that are healthy, and engage in leisure activities. Stols et al (2013) studied the anger behaviour...
of clients with substance abuse and their
sensory processing patterns. They reported
that occupational therapists should evaluate
the sensory processing of their adult clients
with problematic anger and/or substance abuse
difficulties. They suggested that occupational
therapists play a vital role in providing clients
with substance abuse opportunities to deal
with and manage their anger effectively (Stols
et al, 2013). Other studies have reported the
importance of occupational therapy in supporting
clients with substance abuse using a holistic
approach and managing their anger (Stoffel and
Moyers, 2004; Crouch, 2005).

Jordan has been described as a country with a
conservative culture in terms of social traditions
and religious beliefs when dealing with
psychosocial disorders such as substance abuse
(Haddad et al, 2010). The majority of its citizens
are Muslims, and about 5% are Christians. An
amendment to the Narcotic Law was passed in
March 2013 to regulate substance abuse, which
now means that first-time illegal drugs users
who are arrested by the police or antinarcotics
officers can be released without charges. On the
other hand, the law mandates official arrest of
individuals with previous convictions related to
substance abuse and mandates their attendance
at a rehabilitation facility or programme.

There is a dearth of research on the personal
factors that contribute to substance abuse in the
Jordanian community.

Identification of the personal factors that
may contribute to substance abuse from the
perspective of clients is important to inform
prevention as well as rehabilitation and treatment
programmes (Clarke, 2005). Personal factors
have been defined according to the International
Classification of Functioning, Disability,
and Health (ICF) (World Health Organization
(WHO), 2001) as ‘the particular background
of an individual’s life and living, and comprise
features of the individual that are not part of a
health condition or health states’. Accordingly,
personal factors may include gender, race, age,
other health conditions, fitness, lifestyle, habits,
upbringing, coping styles, social background,
education, profession, and past and current
experience (WHO, 2001).

There is a need for more research to fill the gap
in understanding the variety of causes that lead
to substance abuse and the role of occupational
therapy in supporting those affected. The
present study explores the personal factors
that contribute to substance abuse from the
perspective of Jordanian substance abuse clients
and its implications for occupational therapy. The
importance of this study is in helping to address
the dearth of research on substance abuse in
Jordan and the region, its causes and methods of
therapeutic intervention.

METHODS

Participants and setting

This study was conducted in two substance
abuse rehabilitation centres in Amman, Jordan.
The first centre was the Antinarcotics Society,
directed by the National Security Department.
The second centre was the National Center for
Substance Abuse, directed by the Jordanian
Ministry of Health. These are the only two
centres in Jordan specialised in treating clients
with substance abuse. The majority of substance
abuse clients in both centres are from Jordan.

A convenience sampling method was used to
recruit clients from the two centres.

For inclusion in the study, participants had to
be Jordanian citizens diagnosed with substance
abuse, fluent Arabic speakers and currently
undergoing rehabilitation. Those diagnosed with
a chronic psychiatric illness that affects their
insight (e.g. schizophrenia), a communication
disorder (e.g. aphasia), or severe cognitive
impairment (e.g. diagnosed dementia) were
excluded from the study.

Ethical approval

Before conducting the study, ethical approval was
obtained from the Scientific Research Committee
at the University of Jordan as well as from the
National Security Department and the Jordanian
Ministry of Health. The purpose of the study
was explained to all participants, and those who
agreed to participate were asked to sign a consent
form before completing the questionnaire.

Data collection

Nine open-ended questions were presented
to the participants in the form of a written
questionnaire. Participants were asked to answer
the following questions about their experience
with substance abuse:

■ Describe the current fears in your life
■ Describe the main factors that help you
improve your morale
■ Describe the support system/people that help
you overcome your experience with substance
abuse
■ Describe your strong personality traits that
facilitate your recovery from substance abuse
■ Describe your weak personality traits that
hinder your recovery from substance abuse
What is the message that you would like to send to your family?
What is the message that you would like to send to your community?
What do you think would be the best solution to your problem with substance abuse?
How would you describe yourself as a person with drug abuse problems?

These questions were constructed based on the ICF personal factors, the literature review, and the researchers’ experience.

Before data collection, the questionnaire was piloted with 20 participants to check for clarity of wording, redundancy and obscure questions. Modifications were made according to their feedback. A trained registered occupational therapist worked as a research assistant on this project to provide the clients with consent forms and explain the purpose of the study and the voluntary nature of participation. Those who met the inclusion criteria, agreed to participate in the study, and signed the consent form were included. The research assistant’s tasks were to recruit clients, explain the project to them, obtain consent, answer any inquiries from the clients, and collect the data during pilot testing and the main data collection. The research assistant also helped three illiterate participants by reading the questions and writing down their answers. The data were collected over a period of 6 months.

Data analysis

After data collection, the questionnaires were distributed among the three authors equally and in rotations. Each author was given the opportunity to review and analyse the data from all the participants separately. Participants’ responses were coded by each author separately using inductive content analysis (Patton, 2002). Several short meetings were conducted by the authors before the final meeting in order to follow a similar coding process. During the final extended meeting, the authors identified the main themes and subthemes. To further ensure the trustworthiness of the results, 10 participants were randomly selected and briefed on the results using member-checking approach (Patton, 2002). All approved the accuracy of the results.

RESULTS

A total of 146 Jordanian clients who met the inclusion criteria participated in this study. Participants were predominantly male (97.3%) and Muslim (98.6%). The mean age was 28 years and a majority lived with their family (90.4%). Most participants had been diagnosed for over 2.5 years (79.3%), attained high school education (69.2%) and a monthly income over 100 JD (1 USD = 0.71 JD) (75.9%). A large number of participants were employed (71.9%), had no children (65.1%) and had been admitted at least twice to a rehabilitation centre (53.1%) (Table 1).

Five main themes emerged from this study: fears, personal traits, helpers, speaking out, and the best solution. These are discussed below.

Fears

Impact on the family

Most of the respondents expressed fears that their addiction might hurt their family members. They expressed fears that their family members might not trust them, fears of being away from their families and fears of losing their families (especially their spouses). One participant stated: ‘I am afraid that no one will propose to my daughters if they know that I am an addict.’ Others expressed fear that they would not be able to provide for their families.

Legal consequences

Some participants reported their fears of the possibility of going to jail, or of the consequences of reported cases of addiction to the police department and the subsequent consequences. The presence of a policeman at the substance abuse rehabilitation centre in itself raised fears for some participants.

Fear of Allah

Some of the participants reported fears of Allah. One participant stated: ‘I am afraid to die while I am away from Allah.’ In Jordanian culture, addiction is considered haram (a sinful act).

Health

Most of the participants reported concerns and fears about the impact of substance abuse on their health. Concerns related to psychological as well as physical health. One of the participants said: ‘I am afraid that I will have hallucinations.’ Some participants reported fears of death. One said: ‘I am afraid that I will die from an overdose similar to what happened to my husband.’

Social fears

Most of the participants reported social concerns about their current situation. These included the following comments:

‘Society will not accept me as before.’
‘I do not have any achievements in my life so far.’
‘I am afraid that I will not complete my studies.’
‘People might judge me and my family.’
‘People will not admit that I have changed.’
‘I am not sure what I might face outside.’
‘I don’t know where to go.’
‘I do not have a life.’
‘I feel lonely.’

Losing a job
Some participants reported concerns and fears about their financial situation: ‘I am afraid that I will lose my job,’ said one. ‘I am afraid about my critical financial situation,’ said another.

Fears of the substance
Most participants reported a fear of the substance itself and of not being able to refrain from taking it and recovering from its effects. One participant reported: ‘I am afraid that I will quit taking marijuana and start taking something else.’ Another stated: ‘I am afraid of not being able to quit taking the substance.’

Personal traits
Participants were asked to identify disorders in their personality that drive them to addiction and other positive personal traits that might help them overcome their substance abuse problem.

Nervousness
A majority of participants believed that their anxiety over daily hassles weakened their ability to overcome their addiction problem. Other traits included laziness, a weak personality, being soft-hearted, feelings of shame, constantly seeking adventure, loneliness, lying, lack of volition, lack of concentration, and incredulousness.

Lost
When asked to describe the way they view themselves, most participants used the word ‘lost’. The vast majority described themselves with negative adjectives, such as ‘worthless’, ‘destroyed’, ‘bad’, ‘weak’, ‘not respected’ and ‘loser’. Others viewed themselves as victims.

Volition
Most participants reported three main personal traits that might help them overcome their struggle with substance abuse: volition, patience and being sociable. Other positive personal traits mentioned were: being smart, wise, optimistic, ambitious, fear of Allah, spirituality, a strong personality, loved by people, honesty, the ability to make good decisions, and being cooperative.

Helpers
Participants reported several factors that helped them overcome their struggle with addiction.

### Table 1. Demographic data of participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean age (years)</td>
<td>28.00±1.51</td>
</tr>
<tr>
<td>Gender (male)</td>
<td>142 (97.3)</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>50 (34.2)</td>
</tr>
<tr>
<td>Single</td>
<td>78 (53.4)</td>
</tr>
<tr>
<td>Engaged</td>
<td>5 (3.4)</td>
</tr>
<tr>
<td>Divorced</td>
<td>8 (5.5)</td>
</tr>
<tr>
<td>Widowed</td>
<td>3 (2.1)</td>
</tr>
<tr>
<td>Separated</td>
<td>2 (1.2)</td>
</tr>
<tr>
<td>Educational level</td>
<td></td>
</tr>
<tr>
<td>University</td>
<td>24 (16.4)</td>
</tr>
<tr>
<td>Diploma</td>
<td>18 (12.3)</td>
</tr>
<tr>
<td>High school</td>
<td>101 (69.2)</td>
</tr>
<tr>
<td>Illiterate</td>
<td>3 (2.1)</td>
</tr>
<tr>
<td>Living status</td>
<td></td>
</tr>
<tr>
<td>With family</td>
<td>132 (90.4)</td>
</tr>
<tr>
<td>Alone</td>
<td>14 (9.6)</td>
</tr>
<tr>
<td>Onset</td>
<td></td>
</tr>
<tr>
<td>&lt;1 year</td>
<td>10 (6.9)</td>
</tr>
<tr>
<td>1–2 years</td>
<td>20 (13.8)</td>
</tr>
<tr>
<td>2.5–5 years</td>
<td>33 (22.8)</td>
</tr>
<tr>
<td>5.5–10 years</td>
<td>34 (23.4)</td>
</tr>
<tr>
<td>&gt;10 years</td>
<td>48 (33.1)</td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>105 (71.9)</td>
</tr>
<tr>
<td>Unemployed</td>
<td>37 (25.3)</td>
</tr>
<tr>
<td>Volunteer work</td>
<td>2 (2.7)</td>
</tr>
<tr>
<td>Monthly income (1 USD = 0.71 JD)</td>
<td></td>
</tr>
<tr>
<td>No income</td>
<td>35 (24.1)</td>
</tr>
<tr>
<td>100–500 JD</td>
<td>67 (46.2)</td>
</tr>
<tr>
<td>501–1000 JD</td>
<td>33 (22.8)</td>
</tr>
<tr>
<td>&gt;1000 JD</td>
<td>10 (6.9)</td>
</tr>
<tr>
<td>Religion</td>
<td></td>
</tr>
<tr>
<td>Muslim</td>
<td>144 (98.6)</td>
</tr>
<tr>
<td>Christian</td>
<td>2 (1.4)</td>
</tr>
<tr>
<td>Number of children</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>95 (65.1)</td>
</tr>
<tr>
<td>1–2</td>
<td>22 (15.1)</td>
</tr>
<tr>
<td>3–5</td>
<td>26 (17.8)</td>
</tr>
<tr>
<td>&gt;5</td>
<td>3 (2.1)</td>
</tr>
<tr>
<td>Substance abused</td>
<td></td>
</tr>
<tr>
<td>Alcohol</td>
<td>37 (25.3)</td>
</tr>
<tr>
<td>Drugs (e.g. narcotics)</td>
<td>37 (25.3)</td>
</tr>
<tr>
<td>Alcohol and drugs</td>
<td>6 (4.1)</td>
</tr>
<tr>
<td>Others (e.g. cannabis)</td>
<td>55 (45.3)</td>
</tr>
<tr>
<td>Other health conditions (e.g. hypertension, diabetes, anxiety)</td>
<td>17 (11.7)</td>
</tr>
<tr>
<td>Admissions to rehabilitation centre</td>
<td></td>
</tr>
<tr>
<td>First time</td>
<td>68 (46.9)</td>
</tr>
<tr>
<td>2–4 times</td>
<td>56 (38.6)</td>
</tr>
<tr>
<td>5–6 times</td>
<td>11 (7.6)</td>
</tr>
<tr>
<td>&gt;6 times</td>
<td>10 (6.9)</td>
</tr>
</tbody>
</table>

**Work, play, leisure**
The vast majority of participants reported that work, play, and leisure are the main factors that helped them overcome their substance abuse problems. Sports, music, browsing the internet,
 outings, travelling, partying, painting and watching movies were some of the examples. Other facilitative factors included social participation, praying, reading the Koran, having money, succeeding at work or study, and gaining love, trust and acceptance from family.

**Supportive family members**
The vast majority of participants identified their mothers as the key supportive individual during recovery. Other supportive individuals included spouses, siblings, relatives and non-addicts.

**Speaking out**
Participants were asked what message they would send to their families and the community if they had the opportunity to speak out.

The majority of participants expressed guilt and remorse about their behaviour in statements that were directed to their families. Messages such as ‘I am sorry’ and ‘Please forgive me’ were reported. A large group tried to reach out to their families by promising to change (e.g. ‘I will be a new person’) and pleading for help (e.g. ‘Please get me out of here’). Some participants also admitted their mistakes (e.g. ‘Forget the past and let’s make a new start’). However, there were participants who refused to be classified as addicts and/or blamed their families for their bad choices (e.g. ‘You are the reason for what I am now’).

The predominant message that the majority communicated to their community was to stay away from drugs. Some participants wrote: ‘I do not advise anyone to try it… it brings troubles and destruction’; ‘Drugs do not help’; ‘Do not wait on your kids, send them to rehab centres quickly’; ‘Stop drugs, no to drugs’; ‘Supervise your kids’; ‘Do not make the same mistake I did’. Others directed messages to decision-makers and legislators in the government: ‘You should not allow drugs to enter Jordan’; ‘Do not sell alcohol to those below 20 years old’; ‘You should catch drug dealers’. Other messages were directed to the community: ‘Do not be against us’; ‘Give us a chance to show you that we have changed’; ‘We are victims’; ‘Show us mercy’.

**The best solution**
When asked about solutions to substance abuse problems from their point of view, participants mainly reported that the best solution is having strong volition and willpower to escape addiction. Other ideas included seeking medication or rehabilitation assistance, being employed, playing sports, planning for a better future, and praying and asking Allah for help.

Others highlighted the role of the surrounding environment. One of the participants wrote: ‘It is important to get away from bad friends’, whereas another stated: ‘It is important to change the social environment’. A third participant suggested that those with a substance abuse problem should ‘leave the place where you live and move to another place’. Few participants reported that death or suicide was the only solution to their misery.

**DISCUSSION**
The purpose of this study was to explore the personal factors contributing to substance abuse from the perspective of Jordanian clients while considering the social and psychological problems they faced during their treatment and recovery and its implications for occupational therapy. The findings of this study are consistent with other studies that explored potential factors leading to substance abuse (Hudak, 1993; Fergusson et al, 1995; McGee et al, 2000; Ibáñez et al, 2001; Orford, 2001; Sussman and Ames, 2001; Harford, 2003; Moewaka Barnes et al, 2003; Clarke, 2005; Nakhaee and Jadidi, 2009; Bartlett et al, 2013).

The demographic data in this study showed that the participants were predominantly male (97.3%) and relatively young (mean age 28 years), which makes the sample similar to the study conducted by Facundo and Pedrão (2008). Moreover, most (71%) of the clients had attained high school (or lower) education. Most of these participants may have been exposed to substances when they were at school, which may have resulted in dropping out of school or losing the chance to pursue further education as a result of the consequences of substance abuse (e.g. corrective detention, loss of education funds). More than half (56.5%) had a duration of substance abuse of more than 5 years. This implies that teenagers as well as young adults are target groups for health professionals in terms of increasing awareness of addictive behaviours and their consequences.

The findings on fears showed that some participants were mostly concerned with legal consequences, such as going to jail, travel restrictions and having a police record. This may indicate that part of the solution to addiction may lie in legislation to restrict the sale of alcohol or other drugs to clients with a history of addiction (e.g. presenting a medical report on absence of addiction, or having a list of individuals with a history of addiction in liquor stores).
The social consequences of addiction represented a major category of fears expressed by participants. This may be highlighted by the fact that Jordanian culture is highly driven by social expectations and traditions. For example, family reputation and the individual’s medical background are important factors in Jordanian marriage traditions. Being diagnosed with or having a history of addiction can ruin a family’s reputation and compromise its social standing. This was evident from the number of participants who expressed fears that their addictions would have negative consequences for the marriage prospects of their daughters or sisters. This concern may be particular to Jordanian culture or conservative communities compared to countries where addiction is perceived as an individual behaviour rather than a family issue.

The fears expressed by participants about their physical and psychological health, losing their jobs or having social fears were anticipated by the authors. Participants also expressed fears about not being able to stop using the substance, which is consistent with Orford’s definition of addiction. Hence, enhancing the physical, cognitive (e.g. concentration), psychological (e.g. self-esteem) and social abilities should remain among the most important therapeutic goals of occupational therapists working with individuals with substance addiction.

The findings on fear are particularly interesting given that religious guilt was hypothesised to top the list of fears in such a religion-oriented community. However, only a minority (4.7%, n=7) expressed concerns about this aspect. This observation is important for local therapists who may tend to highlight or overestimate the role of religion when providing interventions for people with substance abuse.

Using negative attributes to describe themselves reflects the participants’ dissatisfaction with their current situation, which may explain the themes found in the messages of guilt and regret they wished to send to their families and the community. Such dissatisfaction with one’s behaviour may eventually contribute to such feelings as lack of power, poor wellbeing and inability to recover, which participants generally expressed in this study.

The authors learned that family members, especially the mother, were perceived as the main supports for the clients. Jordanian culture is distinguished by strong family ties, and social support for individuals facing health problems is generally sought from members of the extended family who are obligated to supervise, follow and support each other.

Clinical implications

The findings of this study suggest a number of clinical implications. First, health professionals working with individuals with substance abuse should focus on the personal attributes and traits that clients may possess (or say they possess) when collecting information on their disorder. Further, occupational therapists working with this population should integrate such information when planning interventions in order to facilitate recovery by engaging the motivations and willpower of clients (Stoffel and Moyers, 2004; Crouch, 2005; Wegner, 2005; Davies, 2006; Gutman, 2006; Stols et al, 2013).

Second, introducing skills such as time and anger management or self-awareness to teenage students at schools may play an important role in preventing such self-destructive behaviour (Stols et al, 2013). A focus should also be given to fostering personal traits such as patience and sociability that may help individuals avoid succumbing to substance abuse.

Third, raising public awareness about the struggle of clients with substance abuse and encouraging those who are affected to seek medical and rehabilitative support should be addressed by health professionals in all clinical settings. Extensive efforts should be made by referring physicians and therapists to make rehabilitation services, such as those provided by occupational therapists, social workers and psychologists, available to this population.

Fourth, an implication specific to occupational therapy involves integrating daily occupations and functional roles in work and leisure into the recovery process, as suggested by the participants and the literature (Busuttil, 1989). This may enable clients to overcome their occupational performance problems and thus improve their physical, psychological and social wellbeing (American Occupational Therapy Association, 2014). This implies the importance of having occupational therapists who work with individuals with substance abuse to facilitate and improve client performance in these areas of occupational performance.

Unfortunately, the focus of the two centres where the study was conducted was on the medical model. Services were mainly provided by physicians, nurses and social workers. Occupational therapists and other rehabilitation professionals were not represented. Occupational therapy can achieve effective results for individuals with substance abuse when they are able to work with an interdisciplinary team and develop an individualised client-centred treatment plan. The role of occupational therapy
It is important to raise public awareness about the struggle of clients with substance abuse and encourage those who are affected to seek professional support.

with clients diagnosed with substance abuse might be clear within the profession but may be less well understood by other professionals. Occupational therapists, whether individually or as a professional body, should approach policy makers and related service providers and present the contribution occupational therapy can add to the recovery process of substance abuse clients.

Future studies that recruit stratified subsamples according to age group, gender or religion are needed to explore the contribution of such demographics to the substance abuse problem and the recovery process. Further research should be undertaken in this area with a focus on the effectiveness of occupational therapy with substance abuse clients. Through such studies, the role and the effectiveness of occupational therapy will be made clearer to clients, other health professionals and policy makers.

CONCLUSIONS

The personal factors that contribute to substance abuse among Jordanian clients vary. This study provided participants with the opportunity to express their struggles with substance abuse, enabling them to reflect on their fears, personal traits and the factors that may help them to manage their addiction. It is important to take clients’ perspectives into consideration when treating substance abuse, and to adopt an interdisciplinary team approach. However, following the model described in this study is not enough. The focus should be on giving other health professionals the chance to contribute to treating this worldwide problem.

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Conflict of interest: None declared.

KEY POINTS

- Individuals with substance abuse experience physical and/or psychosocial problems that interfere with occupational performance
- Health professionals should pay attention to the personal attributes and traits that substance abuse clients say they possess when making assessments of their disorder
- It is important to raise public awareness about the struggle of clients with substance abuse and encourage those who are affected to seek professional support.


Facundo FR, Pedrao LJ (2008) Personal and interpersonal risk factors in the consumption of illicit drugs by marginal adolescents and young people from juvenile gangs. Rev Lat Am Enfermagem 16: 368–74


