

BURDEN OF CARE AND QUALITY OF LIFE IN RELATIVES OF OPIOID DEPENDENT MALE SUBJECTS

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SUMMARY

Background: The aim of this study was to compare the quality of life (QoL) and family burden in relatives of patients with heroin dependence with that of healthy controls.

Subjects and methods: A total of 50 heroin dependent patients and 50 of their relatives and 50 healthy subjects and 50 of their relatives were included in the study. The Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders (SCID-I) was used to determine the heroin dependence and other Axis I psychiatric disorders. Family burden and QoL levels in the relatives were assessed with the Zarit Burden Interview (ZBI) protocol and the World Health Organization Quality of Life Assessment-Brief (WHOQOL-BREF), respectively.

Results: There were no significant differences in demographic characteristics between the groups. When compared with healthy controls, family members of heroin dependence patients had significantly higher ZBI scores and significantly lower all subscale scores of the WHOQOL-BREF. ZBI score was positively correlated with duration of the illness. All WHOQOL-BREF subscale scores were negatively correlated with duration of the illness.

Conclusions: The study suggests that heroin dependence not only affects the lives of patients but also the lives of their family members. Heroin dependence leads to high burden on the family and also impairs the QoL of relatives.

Key words: heroin – family - quality of life - burden

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INTRODUCTION

Heroin dependence has a major impact on the lives of patients and anyone who lives with them. Several studies have shown that the disorder substantially interferes with the patients' daily activities; disrupts social life and disturbs emotional well-being. Substance abuse negatively affects people's working life, reduces working performance and is an obstacle to resuming with work (Ozden 1992, Turkcan 1999, Gumus et al. 2002). In recent years, quality of life (QoL) has been specifically investigated among individuals who are heroin users. Generally, opioid dependent individuals report a significantly lower QoL compared to the general population or a comparison group (Bizzarri et al. 2005, Astals et al. 2008, Luty & Arokiadis 2008).

Moreover, heroin dependence appears to impair family functioning in several ways. Family conflicts, depression, exhaustion, lack of leisure time activities, anger, difficulties in social and interpersonal relationships, physical and sexual abuse and feelings of isolation, neglect and stigmatization are amongst the most common difficulties reported by family members (Bush et al. 1996, Shankardass et al. 2001, Shyangwa et al. 2008, Lamichhane et al. 2008, Mattoo et al. 2013). The family burden and QoL of relatives of patients suffering from affective disorders, schizophrenia, anxiety disorders and dementia have been the focus of systematic research

(Prince et al. 2004, Vikas et al. 2011, Zendjidian et al. 2012, Cicek et al. 2013). However, similar research on the family members of patients suffering from other psychiatric disorders such as substance abuse and heroin addiction have attracted less attention despite being highly prevalent (Shyangwa et al. 2008, Lamichhane et al. 2008, Mattoo et al. 2013). A study by Shyangwa et al. (2008) reported that a high percentage of spouses of such patients perceived severe burden. Mattoo et al. (2013) reported that burden of care in heroin dependent patients has been found to be comparable to alcohol dependent patients, and almost all relatives reported moderate to severe burden. Lamichane et al. (2008) compared the family burden of relatives of patients with alcohol dependence and injecting drug use (IDU) and revealed the overall burden was higher for IDU when compared to alcohol dependence.

Although studies that evaluate the family burden in relatives of heroin dependent patients have been increasing in recent years, to our knowledge, there is no study to assess the QoL in relatives of heroin dependent patients. Additionally, there is no study comparing family burden and QoL among relatives of opioid dependent patients and relatives of healthy controls. The aim of this study was to compare the quality of life (QoL), family burden and psychiatric disorders in relatives of patients with heroin dependence with that of healthy controls.

SUBJECTS AND METHODS

Subjects

This prospective case control study included 50 consecutive patients with heroin dependence and their relatives who were admitted to the Psychiatry Out-patient Clinic. The control group was composed of 50 healthy hospital personnel and their relatives without any psychiatric disorder. The patients and the control subjects, as well as the relatives of the patients and relatives of the control subjects, were matched in terms of age, gender and marital status. The purpose and procedures of the study were explained to all the patients, and all participants provided written informed consent. The study was approved by the local ethics committee of the University hospital.

For all groups, inclusion criteria for participants were being between 18 and 65 years of age, and the relatives should have stayed with the heroin dependent patients or the controls for at least 1 year. Those were relatives who stayed with the patient in same household, spending time with him and shouldering responsibilities of caring for him for majority of time.

The exclusion criteria for all study groups were as follows: (a) illiteracy, (b) cognitive incompetence which can make psychiatric interviews difficult, (c) comorbid psychiatric disorders, (d) other substance use disorders, (e) the patients having another family member with mental illness (e.g., schizophrenia, mood disorder and opioid dependence) or chronic medical illness in the same household, (f) presence of severe neurologic disorders and chronic systemic diseases.

Instruments

A Sociodemographic data form, developed for the purposes of this study, was used to determine demographic characteristics and psychiatric disorders of the participants.

The Turkish version of the Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders (SCID-I) was used to determine the heroin dependence and Axis I psychiatric disorders in relatives of patients and the controls. It is a semi-structured clinical interview tool that examines both current and lifetime axis I psychiatric disorders according to DSM-IV (First et al. 1997). It allows the evaluation of such variables as duration of disorder, family history, and the presence of physical diseases. The Turkish adaptation and reliability of SCID-I were studied by Ozkurkcuoglu et al. (1999).

Family burden and QoL levels in the relatives were assessed with the Turkish versions of the Zarit Burden Interview (ZBI) (Zarit et al. 1980, Inci et al. 2008) and the World Health Organization Quality of Life Questionnaire Abbreviated Version (WHOQOL-BREF), respectively (The WHOQOL group 1998, Eser et al. 1999).

ZBI assesses the perceived burden in the caregivers of subjects with psychiatric disorders. Carers were requested to indicate the level of distress caused by each item, ranging from 'not at all' to 'extremely' distressing. It contains 22 items Likert-type scale scored from 0-4 and total score ranges from 0 to 88, with higher scores indicating greater burden. The questions focus on areas such as caregiver's health, psychological well-being, finances, social life, and the relationship between the caregiver and the patient. The validity and reliability of the Turkish version of this instrument has been provided. The internal consistency reliability is 0.95 (Inci et al. 2008).

WHOQOL-BREF-TR is an assessment tool that was initially developed by World Health Organization (WHO) for the subjective evaluation of quality of life (The WHOQOL group 1998). It measures how a person perceives the symptoms of physical or mental diseases, and what kinds of interactions there are between the disease, physical activity, and environment. The Turkish version of the WHOQOL-BREF consists of 27 items with scores of 1 to 5 and assesses four domains: physical, psychological, social relationships and the environment. The validity and reliability study of the Turkish version was examined by Eser et al. (1999). Higher scores indicate higher level of QoL. The Cronbach's alpha values for physical, psychological, social relationships and the environment are found as 0.83, 0.66, 0.53 and 0.73, respectively.

Statistical analysis

SPSS for Windows 16.0 statistical program was used for statistical analysis. Kolmogorov-Smirnov test was used to analyze the distribution of continuous variables. Group differences were examined by using t test or chi-square/ Fisher Exact test. Pearson product-moment correlation and Spearman's rank correlation coefficients were used for correlation analyses. A p-value of less than 0.05 was considered as statistically significant.

RESULTS

Table 1 shows the demographic features of the patients (n=50), control subjects (n=50), relatives of patients (n=50) and relatives of the control subjects (n=50). There were no significant differences with regard to demographic characteristics between heroin dependence patients and the control subjects, as well as between the relatives of patients and the relatives of control subjects.

The mean age for the onset of heroin use was 19.96 ± 4.27 years, and the mean duration of disorder was 28.62 ± 19.40 months. The mean ZBI score in the relatives of heroin dependent patients was 41.92 ± 20.46 , while the score in the control relatives was 10.14 ± 8.16 . The difference was statistically significant ($p < 0.001$). In addition, the relatives of the patient had significantly poorer scores in all domains of WHOQOL-BREF (Table 2).

Table 1. Demographic features of the samples

	Drug users (n=50)	Control (n=50)	P	Relatives of users (n=50)	Control relatives (n=50)	P
Age (year), mean ± SD	22.62±4.19	23.34±4.13	0.390	40.64±12.52	40.92±12.32	0.911
Gender, n (%)						
Female				25 (50)	24 (48)	0.823
Male	50	50		25 (50)	26 (52)	
Marital Status, n (%)						
Unmarried	33 (66)	32 (64)		39 (78)	39(78)	
Married	17 (34)	18 (36)	0.805	11 (22)	11 (22)	1
Relationship to patient, n (%)						
Parent				35 (70)	35 (70)	
Sibling				7 (14)	7 (14)	1
Spouse				8(16)	8 (16)	

Table 2. ZBI and quality of life scores in relatives of patients with heroin dependence and control subjects

	Heroin relatives	Control relatives	p
ZBI (Mean ± SD)	41.92±20.46	10.14±8.16	0.000
WHOQOL-BREF (Mean ± SD)			
Physical health	59.08±20.78	75.72±14.48	0.000
Psychological health	54.90±19.73	71.86±10.93	0.000
Social relationships	49.96±22.03	74.58±12.72	0.000
Environment	58.76±18.20	72.08±12.34	0.000

ZBI: Zarit Burden Interview, WHOQOL-BREF: World Health Organization Quality of Life Assessment-Brief

Table 3. Demographic and clinical correlates of family burden and quality of life in relatives of patients with heroin dependence

	Quality of life levels of relatives				ZBI scores of relatives
	Physical health	Psychological health	Social relationships	Environment	
Patient age	-0.78	-0.48	-0.77	-0.88	0.53
Relatives age (year)	-0.13	-0.06	-0.08	-0.23	0.13
Age at onset of heroin use (year)	-0.04	-0.20	-0.22	-0.20	0.14
Duration of illness (month)	-0.41*	-0.43*	-0.32*	-0.33*	0.42*
ZBI	-0.63*	-0.78*	-0.74*	-0.70*	

*P<0.001; ZBI: Zarit Burden Interview

Correlation analysis showed that ZBI score was statistically significant positively correlated with duration of the illness (p<0.001). No statistically significant correlation was found between the ZBI score of the relatives and the age and education of the patients and their caregivers, as well as the age of onset of heroin addiction. All WHOQOL-BREF subscale scores were negatively correlated with duration of the illness, the age and education of the patients and their relatives, and the age at onset of heroin use (Table 3).

DISCUSSION

This study was a first attempt to examine QoL among relatives of patients with heroin dependence by using the WHOQOL-BREF. Our data showed that relatives of patients with heroin dependence are significantly more impaired according to QoL measures than the control relatives. Scores from our study population on the WHOQOL-BREF subscales were significantly lower compared to the scores from the control relatives.

We are not aware of any other study in the literature that specifically investigated the QoL scores of relatives of patients with heroin dependence. Our results are consistent with a previous report showing that relatives of patients with psychoactive substance abuse presented lower scores in all domains of WHOQOL-BREF in comparison with the sample of non-drug users (Moreira et al. 2013). These findings reflect the poor QoL of relatives of patients with heroin dependence.

In this study, relatives of heroin dependent patients were observed to have a significantly higher family burden than the relatives of control subjects. In a study by Shyangwa et al. (2008), which assessed the heroin dependent patients and their spouses, a high percentage of spouses reported to have perceived severe burden. However, since this study did not include any control group, no comparisons could be made.

Several studies compared the family burden of relatives of patients with heroin dependence with relatives of patients with alcohol dependence (Mattoo et al. 2013, Shareef et al. 2013). In these studies, family burden was

seen to be severe in both alcohol and opioid dependence groups. However, the family burden in relatives of opioid dependent patients was reported to not differ significantly from that of relatives of control subjects. In another study, which assessed the family burden of relatives of patients with alcohol dependence and injecting drug use (IDU), the overall burden was higher in the caregivers of IDU patients than in those of patients with alcohol dependence (Lamichhane et al. 2008). However, because of methodological differences between these studies and ours, comparisons cannot be made.

As shown above, various studies have convincingly shown the presence of significant burden in relatives of heroin dependent patients. However, none of these studies examined its relationship with QoL. Our results indicate that greater family burden due to heroin dependence is associated with significantly poorer QoL in relatives of patients with heroin dependence. Most addicts are not able to perform daily activities or make a living, and significant economic losses are incurred to fuel their habits, be it paying the supplier of the drugs (often through illegal means), or expenditure for treatment and rehabilitation. In later periods, the families experience negative effects of the disorder through disruption of family routine and family interaction, and suffer from psychological, social and economic problems (Bush et al. 1996, Turkcan 1999, Gumus et al. 2002). Additional issues such as a lack of communication within the family, lack of emotional participation and feelings of guilt can affect the psychological and social functionality of both the patient and the family members. Moreover, aggressive behavior of the patients may cause burnout and fatigue in the relatives. As is well known, the area of physical health also includes somatic symptoms of depression, such as the ability to conduct daily jobs, spiritedness and exhaustion, physical liveliness, pain and discomfort, sleep and relaxation and being able to work. The increasing burden on the families of heroin dependent patients might cause psychiatric disorders and thereby decrease the QoL.

Our findings showed that the family burden increased and QoL decreased in relatives of heroin dependent patients as the duration of the disorder increased. This was also corroborated in a study by Malik et al. (2012), who found that the longer duration of dependence the higher was the family burden in the primary caretaker of the patients. In later periods of the addiction, the patient spends a great deal of time on activities necessary to obtain the opioid, use the opioid, or recover from its effects. This results in recurrent social, familial, economical or interpersonal problems. These conditions are usually exacerbated as the duration of disease increases, which might result in an increase in the family burden and decrease the QoL of the relatives.

The main limitations restricting the interpretation of results of this study are as follows: (a) Our sample size was relatively small, which might have decreased the power of some specific analyses. (b) All of the patients

who participated in the study were men. (c) The presence of comorbid personality disorders in patients was not evaluated. (d) Other psychosocial factors were not evaluated, like accommodation, social support, disability, coping skills, living conditions which could affect the family burden and QoL of relatives. (e) Due to cultural characteristics of our population, relatives such as parent, sibling and spouse were included in our study. Therefore, the findings from the study may not be generalized to all relatives and caregivers of the heroin dependent patients. Additionally, duration of time spent with the patient was not evaluated.

CONCLUSIONS

Despite some limitations, the results of the current study suggest that heroin dependence not only affects the lives of patients but also their family members. Heroin dependence leads to higher burden on the family and also impairs the QoL of the relatives. The findings also suggest that all relatives of heroin dependence patients should be screened in terms of family burden and quality of life. Further controlled studies with larger sample sizes should be conducted to investigate long-term effects of heroin dependence and their treatments in the context of the QoL and burden of the caregivers.

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