PROBLEMS WITH INPATIENT DRUG USERS IN JEDDAH

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Background: To identify problems associated with the treatment of inpatient drug users in Jeddah, and suggest ways of improving the delivery of health care service to these drug users.
Subjects and Methods: Three hundred and two subjects with substance dependence who were admitted to the Voluntary Detoxification Unit of Al Amal Hospital, Jeddah, between January and April 1997 (inclusive) were studied. A data gathering form was designed to collect relevant information. Outcome was recorded after discharge or transfer from the unit.
Results: Over half the subjects were single, unemployed, without high school education and came to the hospital unaccompanied. About 68.21% used heroin and 21.52% used alcohol. About 87.86% were intravenous drug users (IVDUs) and 54.69% started injecting from the outset. Just under half of the subjects were from outside Jeddah. There were regional variations in the choice of abused drugs. Most inpatients were on their first or second admission. The vast majority of subjects were readmitted within a year of discharge, and 44.70% gave no specific reason for their hospitalization. Unaided abstinence was reported by 42.71% and post-treatment abstinence by 57.52%. On admission, 57.14% expressed no desire to complete the program. About 54.63% were discharged after receiving medical detoxification, and 7.61% went on to have drug rehabilitation.
Conclusion: The main finding of the study was that very few drug users were committed to completing the treatment program. There is a need to review the related factors that may be responsible for this situation. Changes have to be made to improve compliance and increase retention of the inpatient program. Contractual and probationary treatment of drug users should be initiated. Current restrictions on admissions have to be eased. There should also be a decentralization and development of local services, as well as a reappraisal of addiction services.
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Key Words: Addiction, drugs, detoxification, rehabilitation.

Substance use disorder is a chronic condition of unknown etiology[1,2] characterized by abstinence and relapses.[3-5] Morbidity and mortality are high,[6,7] and the medical and psychological consequences are familiar to all.[8,9] Sustained substance use can result in damage to the brain.[10,11] The harmful effects of drug use extend well beyond the individual.[12] Treatment must be initiated early. This saves lives, reduces criminal activity, improves social functioning and enhances the quality of life of the individual.[13-15] The longer the treatment the better the outcome.[16,17]

Providing treatment to substance abusers is not easy. Studies show that many never request any help,[18] their retention in treatment programs is low,[16,19] and the relapse rate after discharge is high.[20,21] Similar difficulties have been encountered at Al Amal Hospital Jeddah, which is the only specialized center treating drug addicts in the Western region of Saudi Arabia. The facility provides comprehensive assessment, medical detoxification and drug rehabilitation. Detoxification consists of symptomatic medical treatment of both substance-specific (e.g., heroin, alcohol) and nonspecific (e.g., amphetamines, volatiles) withdrawal states. Drug rehabilitation comprises educational and religious activities, group therapies, relapse prevention and counseling. It has been perceived that some changes in the treatment program and services might be required to improve retention and outcome. A hospital-based inpatient survey was done with the purpose of identifying problems with the treatment of drug users and suggesting ways of improvement.

Subjects and Methods

A total of 302 men aged 18 and above with substance dependence admitted to the Voluntary Detoxification Unit between January and April 1997 (inclusive) were interviewed. Their diagnoses were based on DSM–IV. A form was designed to collect data on sociodemographic characteristics, severity of drug problem, reason for seeking treatment, past admissions, commitment to complete treatment program, abstinence type and duration, and outcome. As part of the admission process, a psychiatrist first saw every patient. All relevant data were collected during this interview. On admission, subjects were given the choice of either detoxification alone or detoxification followed by rehabilitation (i.e., complete the program).

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TABLE 1. *Sociodemographic factors.*

	No. of subject	Percentage (%)
Demographic characteristics		
Single	173	7.28
Married	113	37.42
Divorced	16	5.30
Employed	108	35.76
Unemployed	194	64.24
Referral to hospital		
Unaccompanied	178	58.94
With family	118	39.07
By police	5	1.66
With friends	1	0.33
Level of education		
Primary	109	36.09
Intermediate	119	39.40
Secondary	46	15.23
Higher education (college)	16	5.30
Illiterate	12	3.97
Monthly income		
Low (under 5000 SR)	132	55.23
Medium (under 10,000 SR)	81	33.89
High (over 10,000 SR)	26	10.87
Daily spendings on drugs		
Under 100 SR	84	40.79
Under 200 SR	73	32.58
Under 300 SR	37	16.51
Over 300 SR	30	13.39

TABLE 2. *Prevalence of substance dependence.*

	No. of subjects	Percentage (%)
Single substance		
Heroin	175	57.95
Alcohol	29	9.60
Volatiles	21	6.95
Amphetamines	13	4.30
Other substances*	7	2.32
Polydrugs		
Heroin and another drug	12	3.97
Alcohol and another drug	14	4.64
Heroin and alcohol	13	4.30
Other two drug combinations†	3	0.99
Three or more drugs‡	15	4.97

*Cannabis, benzodiazepines, dextromethorpan etc., †excluding heroin and alcohol; ‡includes 4 heroin, 7 alcohol, 2 both heroin and alcohol.

Outcome was recorded after discharge or transfer from the unit. Four subjects were unwilling or unfit (e.g., medically ill) to be interviewed and were excluded from study.

Results

The sociodemographic characteristics of the studied patients are listed in Table 1. Over 50% of drug users were single, unemployed, of a low income group, without high school education, and presented for treatment unaccompanied, i.e., without family, friends or employer. The majority of the patients were from Jeddah, but a significant number came mostly from other adjacent areas: 175 (57.94%) resided in Jeddah, 84 (27.81%) in Mecca, 22 (7.28%) in Taif and 21 (6.95%) in other areas.

The type of abused drugs varied according to the area of residence: 119 (68%) of the Jeddah patients were using heroin, 32 (18.28%) were using alcohol and the rest were on other substances; 76 (90.47%) of Mecca patients were using heroin and 12 (14.28%) were using alcohol; 5 (22.72%) of the Taif patients were using heroin and 9 (40.90%) were using alcohol; 5 (23.80%) patients from other areas were using heroin and 8 (38.09%) were using alcohol. Dependence was generally severe. Overall, heroin was the single most common drug used, to which 206 patients (68.21%) were addicted. This figure included polydrug users (Table 2). A total of 181 patients (87.86%) were IV users and 99 (54.69%) reported IV use from the outset, 46 (25.41%) changed to the IV route within 6 months and a further 11 (6.07%) initiated IV use by 12 months. A total of 59 patients (32.59%) injected heroin of less than 1 g per day, 82 (45.30%) under 3 g, 44 (24.30%) under 5 g, and 6 (3.31%) more than 5 g. Some 27 patients (13.10%) used heroin by the nonparenteral route (insufflation). Of these, 9 (33.33%) took under 1 g of heroin per day, 11 (40.74%) under 3 g, 5 (18.51%) under 5 g, and 2 (7.4%) more than this amount. Two subjects were using both routes. Five heroin-dependent subjects (2.42%) presented with overdose.

A total of 65 subjects (21.52%) were alcohol dependent, with 33 (50.76%) using *arak*, 17 (26.15%) aftershave lotion (*eau de cologne*) and 15 (23.07%) using both. Fifteen subjects (71.42%) who were on volatile substances used glue, 3 (14.28%) used paint, 2 (9.52%) used both and 1 (4.76%) used insecticide spray. Of these subjects, 2 (9.52%) had drug-induced psychosis. Seven amphetamine-dependent subjects (53.84%) consumed over 10 captogen tablets per day, and 5 (38.46%) had drug-induced psychosis. Fifty-seven (18.87%) were polydrug users.

One hundred and thirty-five subjects (44.71%) gave no tangible reasons for seeking treatment, but family or marital problems were the most common reasons given for treatment in 54 (17.88%) (Table 3). Two-thirds of the subjects were either first or second admissions and one subject had more than four admissions. Most subjects reported readmissions within 12 months of discharge, 57 (30.64%) had readmissions within 3 months, 29 (15.59%) within six months, 49 (26.34%) within a year and 51 (27.41%) after longer periods.

Ninety-five subjects (31.56%) gave a verbal commitment to complete the treatment program on admission, i.e., detoxification followed by rehabilitation; and 172 (57.14%) committed only to medical detoxification (Table 4). In terms of outcome, 165 (54.63%) were discharged after completing detoxification, 91 (30.13%) in absentia after failing to return from leave, 23 (7.61%) went on to drug rehabilitation, and the remainder left for other facilities or were discharged against medical advice. From

TABLE 3. *Reasons given for treatment.*

	No. of subjects	Percentage (%)
No reasons	135	44.70
Family problems	54	17.88
Problems at work	20	6.62
Withdrawal symptoms	14	4.64
Hit bottom	12	3.97
Relapsed after abstinence	13	4.30
Financial difficulties	14	4.64
Behavioral problems	10	3.31
Intoxicated/comatosed	9	2.98
Deterioration in physical health	7	2.32
Failed to stop on their own	5	1.65
Legal problems	6	1.99
Others (getting married, etc.)	3	0.99

TABLE 4. *Commitment for treatment on admission and type of dependency.*

	Heroin	Alcohol	Volatile	AP	Others	PD
Requested detox only	107*	14	10	6	3	32
	61.14†	48.27	47.61	46.15	42.85	56.14
Requested rehabilitation	58	10	8	4	2	13
	31.14	34.48	38.09	30.76	28.57	22.80
Finally went to rehabilitation	8	3	1	1	0	6
	4.57	10.34	4.76	7.69	-	10.52

*Number of subjects; †percentage; AP=amphetamine; PD=polydrugs.

TABLE 5. *Readmission and type of dependency*.

Admission no.	Heroin	Alcohol	Volatile	AP	Others	PD
First	49*	19	12	8	6	22
	28†	65.5	57.14	61.5	85.7	38.6
Second	51	6	7	4	1	21
	29.14	20.68	33.33	30.76	14.28	36.84
Third	47	1	1	1	0	10
	26.85	3.44	4.76	7.69	-	17.54
Fourth	28	3	1	0	0	3
	16	10.34	4.76	-	-	5.26

*Number of subjects; †percentage; AP=amphetamine; PD=polydrugs.

the 172 subjects committed to only medical detoxification, 10 (5.81%) reverted back to drug rehabilitation. From the 95 subjects committed to program completion, only 11 (11.57%) went to rehabilitation while the rest requested discharge after detoxification. Two (9.09%) of the undecided group went on to drug rehabilitation. Also, 236 subjects (78.14%) had a past history of abstinence, 129 (42.71%) of them unaided and 107 (57.52%) following treatment at Al Amal Hospital. Unaided abstinence was reported by 78 (67.24%) of first admissions. Among re-admissions 32 (17.20%) had never abstained, 25 (13.44%) reported unaided abstinence, 81 (43.54%) abstained following treatment, 26 (13.97%) had both unaided and post-treatment abstinence and 22 (11.82%) had abstinence in a controlled environment, e.g., prison. From those reporting post-treatment abstinence, 5 (4.67%) had undergone drug rehabilitation while others received only medical detoxification. Ninety-four (87.85%) of the post-treatment and 97 (75.19%) of the unaided group (Table 4) had abstinence in excess of 3 months' duration, and 34 (14.40%) reported occasional use of other substances, e.g., alcohol, benzodiazepine, and cannabis during abstinence from the main drug.

Discussion

The main limitation of this study is that it deals entirely with inpatients in the detoxification unit and relies on self-reports. Although it focuses on hospitalized subjects, the recommendations extend beyond the hospital setup. The goal of the inpatient treatment program is to achieve abstinence, improve functioning and allow individuals to adjust normally in society. The most important finding was that only a small minority was committed to completing the program (Table 4). The majority (57.4%) wanted just medical detoxification. The number who finally went to rehabilitation was even lower (31.56%). Both program- and patient-related factors could be responsible. For example, some aspects of the treatment program may be culturally unsuitable, the length of stay was unacceptably long, subjects were poorly motivated or not psychologically ready, and there is controversy on addiction treatment and outcomes, etc. A treatment program should match the needs and expectations of the drug users.[22,23] Any misconceptions on treatment should be clarified in the minds of patients and public through education. Utilizing brief and intensive methods of treatment could shorten the total length of stay.[24] Subjects should be screened regarding their suitability for psychotherapeutic interventions before being referred to rehabilitation. The treatment program would require changes to meet the needs of both those who are psychologically ready and those who are not. Perhaps a separate skill-oriented and psychotherapy-oriented rehabilitation program is needed for these two distinct groups.

The modern psychotherapeutic approaches are based on secular principles.[25] To be effective, the psychological therapies must conform in theory and practice to the prevailing religious beliefs. Religion had been undervalued, underutilized and under-researched as a treatment modality in psychiatry.[26] Religion acts as a buffer against adversity and stress. It is known to offer protection against drinking, drug use, depression and suicide.[27] The drawback of religion is that it lacks the objectivity of science. Scientific studies based on religion are, therefore, needed. For instance, the impact of religion on coping behavior has never been studied objectively. Psychometric evaluation or measurement of religious beliefs is also a neglected area.

The post-treatment abstinence rates reported were somewhat similar to other outcome studies. However, one-year abstinence rates were lower (30.84%). The vast majority of those who received previous treatment in Jeddah had detoxification and not rehabilitation. This does not imply that rehabilitation was ineffective, as the study was hospital based and did not include all those who received rehabilitation. More research is needed to identify

treatment factors and pre- and post-treatment variables that predict good outcome. Unaided abstinence also requires further study.

Governmental regulations allow for up to four voluntary admissions to drug users. Further treatments are involuntary in a secure Ministry of Interior (MOI) unit for a fixed duration. Most subjects in the study were first or second admissions, with fourth admissions constituting a small number (Table 5). This restriction may be discouraging those with more admissions from getting further inpatient treatment. This policy needs to be re-examined. The authorities could exercise leniency in applying this rule to all those presenting voluntarily for further inpatient treatment. Contingency contracting could be used to ensure that the system is not abused. A sizable number of subjects were admitted for nonspecific withdrawal states that used up their admission chances (Table 2). The current admission policy requires re-evaluation. Inpatient management of nonspecific withdrawal states should be avoided. All voluntary treatments should be contractual, i.e., duration, completion criteria, etc., should be defined, fully understood and agreed upon before hospitalization. This would reinforce self-responsibility for treatment and might lead to improved compliance.

Compulsory treatments could be made by a special order[29]after a specialist in drug dependency treatment had assessed such cases regarding suitability for treatment. Based on the recommendations, a probation order could be issued with attached conditions, e.g., type and duration of treatment, discharge requirements, follow-up arrangements, post-discharge restrictions, etc. Family, police, court or employers could make probation requests. These measures would lead to improvement in retention rates by selecting only those who were motivated and committed to the program. The majority of addicts were single, unemployed, from a low income group and without high school education (Table 1). Many had never worked before. Being employed improves recovery.[30] Opportunities to further educational standing and learn new occupational skills must, therefore, be provided. Special educational and vocational training programs are needed. Associating this with workplace assignments would be advantageous. Some incentive to employers would be necessary to make this arrangement work. These measures would facilitate re-establishment of recovered individuals back in the community.

A substantial number of subjects came to the hospital unaccompanied, i.e., without family, friends or employer. Most subjects gave no specific reason for seeking treatment (Table 3). It is possible that some wanted only respite care. Attempts should be made to keep them in treatment. Family and employer involvement is known to increase the prospect of treatment completion.[31] Engaging them in treatment planning is important and should not be overlooked.

Comprehensive addiction treatment in the Western region is only available at Al Amal Hospital, Jeddah. Many addicts came from places outside Jeddah, where treatment facilities are very limited. Local services that can react to the needs of these individuals are required. This would involve decentralization of the prevailing set-up.[32] Regional psychiatric hospitals and psychiatric units in local general hospitals could be enlisted to render medical detoxification, health education and information. Other types of residential facilities, such as therapeutic communities, half-way houses and hostels, are needed. Community-based assessment, treatment, psychological therapy and counseling services providing an alternative to inpatient care should be developed.

Most of the readmissions occurred within a year of discharge. Aftercare facilities in the community for discharged patients are scant. Non-residential programs providing day care, drop in, work training, shelter, housing and other social facilities are urgently needed. This would render support, opportunities for developing leisure and work skills, respite care, refuge and social mingling to discharged individuals. Voluntary and religious organizations could be motivated to assist with some of these efforts.

In this study heroin was found to be the most common substance used (Table 2). Figures indicate a decline in heroin and a rise in polydrug use compared to earlier findings.[33] This may signal a change in the trend of drug use. The pattern of drug use also varied regionally. For instance, heroin was the main drug in Jeddah and Mecca, but not in other areas. All this has implications for future treatment planning and must be studied further by general surveys. A high number of subjects were intravenous drug users. The hospital-based prevention program is already targeting AIDS and hepatitis education. Similar programs are needed in the community, as many addicts never come to the attention of health services.

Drug services in the Kingdom were conceived over two decades ago. The needs of the population change with time. A reappraisal of addiction services is now necessary. Adequate data on service users should first be collected. A local monitoring system depicting those seeking treatment is therefore needed.[34] This would provide the relevant information required for designing future services. Public expectations on cure, care and control of addicts must be addressed before any changes are introduced.

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