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DRUG ABUSE;
CHANGING PATTERNS IN PAKISTAN

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ABSTRACT ... sohailali98@hotmail.com **Background:** Drug abuse is one of the major problems facing the world today. Care providers and clinicians are faced with ever changing patterns of drug abuse and hence need to stay abreast of the latest developments. Research in this area in Pakistan is direly needed. **Aims:** This study was undertaken with an idea of collecting basic data to assess the extent and variety of drug abuse in patients presenting to the researchers, and to assess the changes during a five-year interval. **Design of study:** Non-interventional comparative study. **Setting:** Department of Psychiatry, District Headquarters Hospital, Faisalabad **Period:** From1996 to 2001. **Materials & Methods:** The sample consisted of patients admitted for treatment in the years 1996 & 2001. Statistical analysis was carried out using the software package SSPS utilizing tests such as the chi square and student's t-test. **Results:** In this department, drug abuse is more frequently reported among urban, literate, married males during young adulthood. Tobacco and cannabis are most frequently reported. Sex, curiosity and peer pressure are the main motivations involved in starting drug abuse. Besides these stable findings, some changes have occurred during five years; polydrug abuse has become more frequent and the socioeconomic status of this patient group is deteriorating. **Conclusions:** The problem of drug abuse is still rampant, if not increasing with time. The patterns of drug abuse are becoming more complicated, posing new challenges for health care planners and providers. More research needs to be undertaken in this area.

Keywords: Drug Abuse, Pakistan, Patterns

INTRODUCTION

The use of psychoactive drugs can be traced far back through the history of man, who seems always to have used them not only to enhance pleasure and relieve pain, discomfort, frustration or guilt; but also to achieve social, religious and ritualistic goals, and mask the realities of life[1]. Some people may take drugs more frequently, become drug dependant and thus abuse drugs. An upward trend in drug dependence has been reported from most of the countries around the world[2-5]. Drug addiction is a worldwide problem. Moreover the patterns of drug use and the kinds of drugs used vary widely from region to region, country to country and even with in countries. Crime and other problems also vary according to drug abuse patterns[4-7].

A report released by UNDCP in 1997 on "International Day against Drug Abuse and Illicit Trafficking" says that about 3.3% to 4.1% of the global population consumes illicit drugs. Cannabis is consumed by about 2.5% of the global population, which is equal to 140 million people worldwide[8-12].

The people that are easily hooked are younger. In the US the use of Marijuana and cocaine among students doubled, from 1991 to 1994, with an average age of 13.9 years. In Pakistan, it is reported that heroin use is started at the age of 15 to 20 years and there is an upward trend in drug abuse. Similarly, in the Czech Republic the abusers were 37% and in Slovak, the capital of Bratislava, almost 50% drug addicts were in the age of 14-19 years. In Egypt, a broad sample of secondary school students admitted to have used cannabis as 85%, heroin 6% and opium 10%[9,11]. In Nigeria, more than 25% of students used a wide variety of illegal drugs. The use of amphetamine type stimulants (ATS) is more than 30 million i.e., 0.5% of the global population.

A survey carried out in the United Kingdom revealed that 48% of the age group of 16-24 years used illegal substances in their lifetime and 18% of them were past month users. The number of offenders dealt under UK Drug Act of 1971 increased from 86,000 in 1994 to 95,000 in 1996; the number of drug abusers in treatment was 24.879 in the six month period September 1996 which was 48% higher than the equivalent period of three years earlier. The number of deaths in the UK attributable to the misuse of drugs rose from 1399 in 1993 to 1805 in 1995. More than 50% drug abusers who inject cocaine also suffer from HIV infections in major western cities[13]. In the USA, 2.9 million people use heroin and 23.7 million use cocaine since the end of the cold war.

In Pakistan, in the past years, opium and bhang had been freely available in government licensed shops; but under the counter the same shops were selling Charas and other illegal drugs. The drug abuse situation remained fairly stable, mostly confined to the lower social strata[7]. Commonly these drug abusers were called charasi, bhangi, afimchi and were looked down upon. In sixties, the middle and upper classes got involved; pot/key clubs became popular. In seventies, psycho tropic substances invaded every class of the population and drugs like Doriden (glutethemide) Mandrax (methaquolone) and Megaton (nitrazepam) were frequently abused. In eighties, it was the turn of heroin, so opiates came on the scene.

Pakistan is situated in a geographical region where hemp and poppy grow and are cultivated illegally in abundance. UNDCP (United Nation Drug Control Program) have been providing assistance to this region, but war, violence, social and political unrest and economic troubles have exacerbated the drug abuse problem in this region.

The increasing population of drug dependent persons is a source of increasing concern for Pakistan. There has been a substantial increase in the number of drug dependents in Pakistan over the past years[7].

Hashish, opium and heroin are the preferred drugs among the male population. Pakistan is one of the countries most hard hit by narcotics abuse in the world. According to the national drug abuse surveys the number of chronic users of heroin increased from about

20,000 in 1980 to more than 15,00,000 (1.5 million) in late 1990. In the end of the 20th century the number of chronic abusers in Pakistan was more than 3,000,000 (3 million). At present there are approximately 3.5 million drug abusers in Pakistan, of which 1.8 million are heroin abusers, (Reported in UN Drug Control Program News).

The social factors that have led to this explosion continue to exist, and given the present socio-economic conditions in the country, there is reason to believe that drug abuse will continue to increase until such time as effective need-based drug demand reduction strategies are implemented. The impact on millions of households burdened with the emotional, economic and social consequences of drug abuse translates into a massive loss of useful and functional productivity and an increasing strain on the already overburdened health and legal system.

A survey conducted by UNDCP and the ILO in 1994 revealed that there were, at that time, 204 drug abuse treatment facilities in Pakistan. Most of these facilities (over 85%) are basic detoxification programs that offer simple medical management to treat withdrawal symptoms. Some of the programs offer a more holistic approach towards treating dependency but the number of clients they can cater to is extremely limited and the quality of the services provided varies greatly.

In the past, the main drug of abuse in Pakistan was heroin, and the most common mode of use was by burning heroin on a foil and inhaling the fumes ("chasing the dragon" or "chasing"). However, since 1997, drug abuse treatment providers in Lahore have witnessed a rapid shift in the type of drugs abused and the mode of drug use among the street drug sub-cultures. It appears that an increasing number of chronic heroin abusers are shifting from smoking heroin to injecting a combination of legal and illegal drugs.

This shift from using a non injectable form to the injecting of a drug cocktail may be attributed to a combination of causes, including the high cost of heroin and the relative affordability of legal drugs; the difficulty in obtaining heroin of acceptable quality and potency and the easy availability of legal, standardized quality drugs, available without prescription versus the difficulty in acquiring heroin due to its status as an illegal substance.

Changes in pattern of drug abuse at the Model Drug Abuse Treatment Centre, Department of Psychiatry at D.H.Q. Hospital Faisalabad, were studied and the findings are reported in this paper.

MATERIALS AND METHODS

All cases coming to the unit directly or referred by various agencies, during the years 1996 and 2001, were taken up for treatment and included in this study.

A registration number was allotted to each patient included in the study. During the treatment period a team consisting of a social worker and a psychiatrist, collected various types of information.

Information collected for this analysis consists of patient's sex, age, usual residence (City/Rural Area), type of drugs used, marital status and employment status etc.

A comparative study of drug addicts, admitted during the year 1996 and year 2001, was done to evaluate the change in the pattern of drug use and demographic and socio-economic characteristics.

Statistical analysis of the data was carried out using the program SPSS and statistical significance was calculated using the student's t-test for numerical data and the chi square test for categorical data[14]. Threshold for statistical significance was set at $p<0.05$.

RESULTS

Total Number of Admissions

During the year 1996 and 2001 the number of drug addicts, who got admission were 89 and 210 respectively. There was thus a significant increase (236%) in the number of admissions per year during this five-year period.

Usual Residence

Distribution of cases according to their usual residence among cities (Urban area) and villages (rural area) is shown in table I below. There was a statistically significant increase in the proportion of patients presenting from the urban areas during this period.

Table I Residence of patients		
Year	Urban	Rural
1996	58%	42%
2001	77%	23%

Cigarette Smoking in Drug Dependent Patients

It was interesting to note that about 95% of drug dependent patients were smokers in both the years 1996 and 2001.

Gender and Religion

In the year 1996, out of 89 respondents, only 02 were female addicts. In the year 2001, out of 210, there was only one female drug addict. In both the years, all respondents were Muslims.

Table II Age at the time of admission		
Age (in years)	1996(%)	2001(%)
Below 20	1	3
20-25	1	16
26-30	22	23
31-35	30	25
35-40	28	15
41-45	9	11
45-50	-	5
51-55	1	2

Age at the time of admission

During both the years, 1996 and 2001, the minimum age was 19 years and maximum age was 55 years. During both the years, the majority of respondents got admitted between the ages 31-35 years.

The trend of admission for detoxification at an earlier age significantly increased in 2001, as compared to the year 1996; as shown in Table II below.

Age at the time of first use

Age at the time of first use ranged from 10-45 years in both the years 1996 and 2001. In 1996, the majority (31.3%) respondents started during the age range 26-30 years.

In 2001, the majority (29.10%) respondents started during the age range 16-20 years.

Table III Age of starting drug abuse		
Age (years)	1996(%)	2001(%)
10	1	1
11-15	5	8
16-20	17	29
21-25	20	24
26-30	31	21
31-35	15	9
36-40	6	3
41-45	6	6

Table IV DURATION OF USE		
Duration(years)	1996 (%)	2001(%)
0-5	63	29
6-10	29	30
11-15	7	25
16-20	1	8
21-25	0	2
25-30	0	7

So, from 1996 to 2001, the modal age range for starting drug abuse showed a statistically significant decline, as shown in Table III below.

Duration of use

In 1996, the maximum duration of use was 20 years, and majority of respondents, (63.9%) were using drugs for 5 years.

In 2001, the maximum duration of use was 30 years, and majority of respondents (29.76%) were using for 6-10 years. There was a statistically significant upward trend in the duration of use over the study period(Table IV)..

Marital Status

In 1996 59% of the respondents were married at the time of their admission and 92% of them started after marriage.

Table V MARITAL STATUS		
	2001(%)	1996(%)
Married	67	59
Started after marriage	69	92
Unmarried	33	41

Table VI: Level of Education		
Education	1996(%)	2001(%)
Nil	35	31
Primary	20	23
Middle	17	18
Matric	20	19
FA	8	7
BA	1	3

Now, in 2001, 67% of the respondents were married at the time of admission and 69% of them started after marriage. Thus there was a significant increase in the proportion of married addicts and an increase in those starting drug abuse before marriage.

Level of education.

In both the years' level of education of the respondents remained nearly the same.

Table VII: Nature of employment (1996)	
Profession	%
Skilled person	18
Daily wages laborer	17
Employed	15
Agriculturist	14
Drivers	13
Sales Men	13
Nil	5
Businessmen	1
Students	1

Table VIII Nature of employment (2001)	
Profession	%
Employed	30
Un employed	70
Daily wages laborer	14
Body massager	4
Driver	4
Tailor	3
Technical workers	3
Self employed	2
Vendors	1
Sales men	0.5

Present socioeconomic status and nature of employment.

In 1996, almost all the respondents (95%) were employed and 5% were not employed at the time of interviewing. This is shown in Table VII.

In 2001, majority of the respondents 70% were not employed at the time of interview. 30% respondents who claimed to be employed were meeting their daily expenses through income from irregular jobs.

The source of income for nearly 30% of those who considered themselves unemployed was reported as families and friends. Only 1% respondents claimed that they generated income from drug pushing. A statistically significant change that occurred was that the proportion of unemployed addicts reporting to the unit increased from 1996 to 2001.

Table IX MONTHLY INCOME:		
Income	**1996(%)**	**2001(%)**
Nil	7	-
Up to 1400	3	29
1500-3000	3	70
3100-4000	38	2
4100-5000	15	0.5
5100-6000	10	-
6100-7000	3	-
7100-8000	3	-
8100-9000	1	-
9100-19000	5	-
>10,000	4	-

In 1996, the socio-economic status of the drug addicts was significantly better as compared to 2001; majority of the respondents (37.6%) were earning Rs. 3100-4000/month.

In 2001, the majority (69.5%) were generating between Rs.1500 and Rs. 3000 per month from various sources.

Drug use history, patterns and practices:

Analysis of drug use history, patterns and practices of the respondents revealed several important findings. Among other findings, a significant change in mode of drug use from smoking and inhaling to injections, was seen.

In 1996, majority of the respondents (65.5%) were using heroin and 10.0% were using injections.

In 2001 the use of Heroin significantly decreased to 38.3% and use of injections increased to 35.5%. During this five-year period, the drug addicts shifted to multiple drug use.

Table X Drug Abuse Patterns		
Drug abuse	**1996 (%)**	**2001(%)**
Heroin	66	38
Opium (raw)	15	10
Injections	10	36
Combination of Syp and tablets	8	15
Charas	2	1

These combinations of drugs include sedatives, antihistamines and antiemetic drugs and often complement other drugs used, enhancing their positive effects and minimizing the side effects.

Almost all addicts were not dependent on just a single drug. They were using one major drug and when they were not satisfied with it, they combined other drugs to get maximum response.

Morphine was the most commonly used injectable drug. Other popular substances were legal prescription drugs available from pharmacies, over the counter and without prescription. e.g. Temgesic, Morphia Avil, Diszepan, and Marzine etc.

SUMMARY OF THE RESULTS

During this five-year period, the following changes were observed:

1. Number of people reporting for detoxification to the unit increased.
2. Proportion of patients form the urban areas increased.
3. Proportion of females reporting for detoxification decreased.
4. Trend of admission for detoxification at an earlier age increased.
5. There was a significant decrease in the age of starting drug abuse.
6. Duration of use increased.
7. Proportion of married addicts presenting to the unit increased.
8. Proportion of unemployed addicts increased and the monthly income showed a downward trend.
9. Polydrug abuse increased and there was a shift from smoking or inhalation to injectable drug abuse. Combinations were used more often, and the emphasis shifted form heroin to legal prescription drugs.

During the five-year period, the following variables remained stable:

1. Majority of the patients were urban, literate, Muslim males.
2. Majority were cigarette smokers.

DISCUSSION

The number of patients reporting to the unit for detoxification increased. This could be due to a number of factors viz; there has been a general increase in drug abuse nationally and internationally over the past few years[5,6,13,15]. This increase in admission rates may also reflect increasing awareness about the harmful effects of drug abuse, or more stringent laws decreasing the availability of drugs on the street. Now that this change has been documented, further research should focus on the etiological factors so that this question can be answered.

The preponderance of urban patients in both years may reflect the fact that drug abuse is more prevalent in the cities or it may be due to the greater utilization of health services in the urban areas as compared to the rural population because it is logistically difficult for rural patients to get admitted in hospitals in urban centers, This reflects a gap in the provision of health services and should be viewed in that perspective.

The constant finding that smoking is found in the majority of drug addicts is a reflection of the now established finding in international research that tobacco is a gateway drug for more serious drug abuse[2-5,7,8]. The other documented gateway drug, cannabis, also known as marijuana[8-13], is also widely used in Pakistan and has become a part of our culture[7, 13]. Further research on cannabis abuse in the region would be very useful.

A trend towards earlier start of drug abuse and longer duration of abuse is also significant in that it reflects increasing severity of the problem and the relative failure of efforts to curb this menace. This scourge now affects youth in their prime and this trend is also documented internationally[15]. The finding that adolescents are more involved in drugs implies that prevention strategies will have to target this age group specially.

The finding that a greater proportion of the addicts were married, in 2001 as compared to 1996, also has important social implications. The economic and social burden of drug abuse is increased manifold if the addict is married, with harmful effects expected in the families, termed as the ripple effect. The wives and children face many problems including stigmatization, abuse, crime, poverty, and social isolation etc.

The decline in the socioeconomic status of the group as a whole is also a natural consequence of the problem, but it has negative implications in that it will further marginalize the group and decrease the chances of their rehabilitation and ultimate reintegration into society.

The changes in pattern of drug abuse documented in this study are also in line with the clinical impression of health care professionals involved in the care of drug addicts. The shift towards intravenous drug abuse, polydrug abuse and the increasing use of over the counter allopathic drugs reflects dangerous trends, The easy availability of these drugs, poor control on their sale and the health hazards of intravenous drug abuse combine to aggravate an already pathetic situation.

CONCLUSION

Drug addicts presenting in the department are younger, have been using drugs for longer periods than previously, and are shifting towards modern drugs and intravenous polydrug abuse. This has important implications for planning and implementation of drug abuse control laws and health provisions in the future.

CLINICAL IMPLICATIONS

1. More resources and more trained staff are needed, as the number of people seeking help is increasing but the resources and facilities are not.
2. Drug control strategies need to be critically re-examined, as the accumulating evidence shows that they are not proving successful.
3. Training of staff should focus on the emerging challenges e.g. complications of intravenous drug abuse.
4. More research should be carried out in this area.

LIMITATIONS OF THE STUDY

1. Results of hospital based studies cannot be generalized to the community until confirmed by further research.

2.. The sample size was small.

3. The patient group was not a random sample of the addicts in the community.

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