

A STUDY OF FACTORS AFFECTING RELAPSE IN SUBSTANCE ABUSE

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ABSTRACT

Substance abuse is a global problem with geographical variations in patterns of abuse. Studies from substance abuse prevalent areas play a major role in understanding of factors predicting relapse. A cross sectional study was planned to asses various factors determining relapse in substance abusers. 40 patients of substance abuse relapse were compared with 40 abstinent subjects as controls. All subjects were assessed on sociodemographic characteristics and history of substance abuse, and then subjected to Family typology scale, Family interaction scale, Presumptive stressful life events scale, Eysenck's personality questionnaire and Multidimensional scale of perceived social support. We found that relapse was more in substance abusers of less than 30 years age, those having lower educational and socioeconomic status, unemployed, having family history of substance abuse and past history of crime. Early age of onset of abuse, and poor follow up after detoxification were also associated with relapse, in addition to poor family and social support.

KEYWORDS : Factors, Relapse, Substance abuse

United Nations office on drug and crime reported 62.5 million users of alcohol, 8.75 million of cannabis, 2 million of opiate, and 0.29 million of hypnotic of sedatives users in India. Majority of treated substance abusers ultimately relapse which may be frequent and rapid. Various sociodemographic factors like young age at initiation, male sex, unemployment, singular status, peer group influence, family history of substance abuse, and poor family support, are well known to be associated with relapse. Similarly co morbid psychiatric illness or personality disorder predicts poor outcome in substance abusers.

Our study centre caters health needs of a large catchment area which is known for substance abuse and no research on this issue has yet been conducted in the area. So we planned study to asses various factors associated with relapse in substance abusers.

MATERIALS AND METHODS

After obtaining approval from institutional ethics committee, this study was conducted at a tertiary care teaching hospital. For the purpose of study we enrolled consecutive 40 substance abusers attending psychiatry OPD

or admitted in ward, who had history of at least one episode of relapse in past. Another 40 patients who had past history of substance abuse but were abstinent for last three months, constituted control group. Those who refused to give written informed consent were excluded from the study. All cases were subjected to a semistructured proforma for collecting sociodemographic details, data regarding drug taking behaviour like type of substance abuse, age of onset of abuse, total duration, frequency etc., and data regarding previous detoxification episodes as number and time of episodes, duration of abstinence and duration of follow up. Then all subjects were assessed on general health questionnaire-12 (GHQ-12), family typology scale)and family interaction scale to asses family behaviour patterns, presumptive stressful life events scale (PSLES))to record stressful life events in past one year, sociodemographic status classification scale, Eysenck's personality questionnaire to asses personality traits, and multi dimensional scale of perceived social support (MSPSS) for assesment of social support. All scales were administered by first author. The subjects who scored two or more on GHQ and/or scored positive on neurocitism/extroversion/psychoticism scale, were evaluated on section C, D and E of

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Indian psychiatric interview schedule (IPIS) and psychiatric diagnosis by was made according to international classification of diseases,10th version(ICD-10). Consultant psychiatrist confirmed the diagnosis.

Statistical Analysis: Data presented as percentages. For

Table 1 :Data regarding sociodemographic factors

	Study group(n=40)	Control group(n=40)	
Age			
Up to 30	28(70%)	16(40%)	$X^2=7.273$
More than 30	12(30%)	24(60%)	, $P<0.01$
Occupation			$X^2=7.912$, $P<0.01$
Unemployed	20(50%)	8(20%)	
Employed	20(50%)	32(80%)	
Education			$X^2 =17.033$
< Primary	25(62.5%)	7(17.5%)	$P <0.001$
Primary to Secondary	10(25%)	24(60%)	
> Secondary	5(12.5%)	9(22.5%)	
Marital status			$X^2=7.013$, $P<0.01$
Unmarried, divorced and seperated	12(30%)	2(5%)	
Married	28(70%)	38(95%)	
Socio economic status			$x^2=18.235$, $P<0.001$
Upper, and upper middle class	4(10%)	18(45%)	
Middle class	8(20%)	12(30%)	
Lower middle, and lower class	28 (70%)	10(25%)	
Family type			$X^2=0.208$
Joint	25(62.5%)	23(57.5%)	$P >0.05$
Nuclear, or living alone	15(37.5%)	17(42.5%)	
Family H/o substance abuse	28(70%)	14(35%)	$x^2=9.825$, $P<0.01$
Past H/o crime/impris onment	21(52.5%)	7(17.5%)	$x^2=10.769$ $P<0.01$

*statistical analysis was not performed due to small frequencies.

categorical variables interdependence was tested by chi square test with Yates correction when required.

RESULTS

Table,1 shows distribution according to socio

Table 2:Data related to substance abuse

	Study group(n=40)	Control group(n=40)	
Chief substance of abuse *			
Heroin	32(80%)	30(75%)	
Alcohol	6(15%)	7(7.5%)	
Multi-substance	2(5%)	3(7.5%)	
Age of onset of substance abuse (years)			$x^2=11.690$, $P<0.01$
15-20	26(65%)	12 (30%)	
21-25	12(30%)	18(5%)	
26-30	2(5%)	10(25%)	
Number of episodes of detoxification			$x^2= 7.273$, $P< 0.01$
1 or 2	12(30)	24(65%)	
More than 2	28(70%)	16 ()	
Average duration of follow up			$x^2= 31.084$ $P<0.001$
No follow up	22(55%)	2(5%)	
Up to 2 months	12	10	
>2 month	16	28	

*statistical analysis was not performed due to small frequencies

demographic factors. All the subjects in study and control groups were males. Over all 52% substance abusers were Muslims and both groups were comparable for religion and domicile status. Unemployment was prevailing in both groups although abstinent subjects had significantly less occupational problems than relapsed ones. Similarly low socioeconomic status was significantly more in study group with only 22% from upper or upper middle class in contrast to 45% in control group. 28% of those who had relapse were singles in comparison to only 2.5% of those who were abstinent and this difference was highly significant. Majority of subjects in both groups were from joint families

without any significant difference between two. Past history of any crime or imprisonment was significantly higher in relapse cases in comparison to those who were abstinent (52.5% Vs 17.5%). The nature of crime in both groups was minor (i.e. minor thefts, quarrel with neighbours, relatives or family members etc.) and the duration of imprisonment was usually less than one year in most of the cases.

Table,2 depicts factors related to substance abuse. Majority of our subjects were heroin abusers and both groups were comparable for chief substance of abuse. Relapse cases started significantly early than controls. Peer influence (50%) was prime factor for starting substance in both the groups followed by curiosity (10%). Study group had significantly more episodes of detoxification in past and poor follow ups than controls. Reasons revealed by study group members for poor follow up were lack of affordability of treatment due to poor financial status, distance of institution from home, poor family motivation, poor information provided by treating physician, no perceived withdrawal symptoms and misconceptions about treatment.

Factors for restarting substance abuse after detoxification were peer influence and craving in 32.5% and 22.5% of subjects respectively, while only 7.5% subjects blamed withdrawal symptoms for it. Other factors like 'to increase work efficiency' (12.5%), stressful events (10%), boredom/loneliness (7.5%), and 'to enhance sexual power' (5%), had minor impact.

Table,3 describes data from different scales. Antagonistic family interactions were significantly high in relapse cases (P<0.001) in comparison to cordial family interactions which were significantly high in abstinent cases (P<0.01). Similarly anomic family type was significantly higher in relapse cases(P<0.05) while normal cohesive type was significantly higher in abstinent cases (P<0.01).

In study group 68% experienced three or more stressful life events in preceding year as compared to 18% in controls thus are showing a highly significant difference(P<0.001). Similarly perceived social support was significantly more in abstinent subjects (P<0.001). On personality assessment study group had significantly high neuroticism scores than controls (P<0.05). Psychiatric illness (table,4) was found in 55% cases and in only 10%

Table 3: Data related to findings from different scales

	Study group (n=40)	Control group (n=40)	
Family interaction patterns			
Cordial interactions	22(55%)	34(85%)	X2 =8.571, P<0.01
Indifferent Interactions	8(20%)	4(10%)	X2 =1.569 P>0.05
Antagonist Interactions	10(25%)	2(5%)	X2 =40.833 P<0.001
Family typology			
Normal cohesive	17(42.5%)	29(72.5%)	x2=7.364,P <0.01
Egostic	7(17.5%)	5(12.5%)	x2=0.391,P >0.05
Altruistic	6(15%)	4(10%)	x2=0.114,P >0.05
Anomic	10(25%)	2(5%)	x2=4.804,P <0.05
Stressful life events in last year			x2=20.460, P<0.001
< 3 events	13	33	
>3 events	27	7	
Perceived social support(MP SS score)			x2=18.003, P<0.001
12-36	23(57.5%)	7(17.5%)	
36-60	15(37.5%)	19(47.5%)	
60-84	2(5%)	14(35%)	
Personality profile			
Psychoticism	7(17.5%)	11(27.5%)	X2=1.147, P>0.05
Extroversion	6(15%)	8(12%)	X2=0.346, P>0.05
Neuroticism	16(40%)	6(15%)	X2=6.270,P<0.05
L/invalid	11(27.5%)	15(37.5%)	X2=0.911,P>0.05

*statistical analysis was not performed due to small frequencies.

Table 4: Distribution of psychiatric illnesses

Psychiatric illness *		
No illness	18(45%)	36(90%)
Depression	15(37.5%)	3(7.5%)
Generalized anxiety disorder	3(7.5%)	1(2.5%)
Obsessive compulsive disorder	2(5%)	0(0%)
Bipolar affective disorder	2(5%)	0(0%)

controls with a highly significant difference.

DISCUSSION

Various factors associated with relapse in substance abusers were consistent with those reported in previous studies. However, there were variations and the results suggested that locally relevant issues were contributory for these variations.

Majority of substance abusers were in age group of 20-30 years as observed in earlier studies. Subjects who had a relapse were younger than those who maintained abstinence. This observation is in line with observations that older age in substance abuse was associated with favourable outcome.. Though religion wise both groups were comparable, but overall more than 50% individuals were Muslims. This is in contrast to normal population of Muslims in India which is approximately 13%. The possible reason is that in this region heroin dependence is very common in Muslim community.

In our study unemployment was strongly associated with relapse in substance abusers. Our finding is in line with many previous studies. In contrast Margoob and Dutta,(1993) found that marital, occupational, and educational status did not reveal any significant difference in 189 outpatient drug users.

Educational level of study group was significantly low than control group although overall educational level was low in both the groups. Researchers have found that low level of education was a significant predictor of relapse in substance abusers. In contrast Pagare et al., (2004) in a study of street children concluded that literacy rate and urban background was not significantly associated with drug abuse.

Being single was a predictor of relapse in our study. This is in line with earlier studies who observed high rates of unmarried or single substance abusers and associated this factor with poor outcome and frequent relapse. We found a significant impact of low socio economic status on substance abuse and on relapse similar to Kadari et al., (2003) who observed that 78.6% substance abusers were belonging to low socio economic class.

As compared to controls family history of substance abuse was significantly higher in relapse cases. It is a well known fact that one family member's substance abuse is often influenced by substance-using behaviours of others in the family. Family history of substance abuse has been associated with increased risk of relapse even in health care professionals. Grichting and Barber,(1989) reported that drug abuse in parents had significant influence on substance abuse in children, especially from father to son.

We observed associations of past history of crime or imprisonment with relapse. This finding is in accordance with many previous studies which related crime as a poor prognostic indicator in substance abuse.

In our study majority of subjects were heroin addicts followed by alcohol and multi substance abuse. Huge number of heroin addicts in our study reflects a widespread distribution and easy availability of heroin in catchment area. We found early onset of substance abuse as a predictor of relapse. Starting to use drugs or inhalants at an early age is a marker for greater likelihood to be an active drug abuse case.

Peer influence was most common factor for starting substance abuse in our study. This is in agreement with Gossop et al., (1989) who found that common factor leading to substance abuse were peer pressure and learning from family members and peer group. (5) Relapse had a significant association with chronicity of substance abuse in our study. Our findings showed similarity with earlier studies of opiate abuse.

We found that history of multiple detoxification had an association with poor outcome. Our finding on this parameter are supported by Darke et al., (2005) who found that those exposed to single treatment episode had longest abstinence period and no one who experienced more than five treatment episodes achieved sustained abstinence.

Follow up duration after detoxification had significant association with abstinence, a finding which has ample support in earlier studies. Peer influence and craving were two most common factors for restarting substance abuse after successful detoxification. Earlier researchers have found peer pressure, craving and drug related cues as a risk factor for relapse. In a study of opium dependence conducted at AIIMS, New delhi Hemraj et al.,(2000) was observed that reason for first use and regular use were almost the same.

In our study subjects from normal cohesive families or from families with cordial interaction pattern were less prone to relapse. This fact is well established in literature. Substance abusers experienced significantly higher stressful life events in preceding year than those who were abstinent. Similar observations were made by earlier researchers.

Lower scores of perceived social support scale were found to be associated with relapse in our study. Empirical evidence indicates that social support can help patients in their effort to achieve and maintain abstinence. A study of relapse in heroin addicts, alcohol users, overeaters, and gamblers Marlatt and George, (1984) found that social pressure (36%), negative emotional states (19%), and interpersonal conflicts (14%) were common factors related to relapses.

Assessment of personality characteristics revealed that neuroticism scores were significantly high in relapse cases. Fisher et al., (1998) reported that high neuroticism and low conscientiousness were strongly associated with relapse.

Presence of psychiatric illness was significant predictors of relapse and most common were depression, and anxiety disorders. Satija et al., (1989) found that abstinent rate was 18.8% in opiate addicts with psychopathology in contrast to 60.8% in addicts without psychopathology.

CONCLUSION

Our study supported most of earlier findings related to relapse in substance abuse and emphasized that five factors having most significant influence on relapse in substance abuse were education, socioeconomic status,

duration of follow up, number of stressful life events, and perceived social support. Thus substance abuse management should not be limited to detoxification only but emphasis should be given on longer follow ups, family interventions and management of comorbid illnesses.

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