

## ORIGINAL ARTICLE

# Relapse Precipitants, Life events and Dysfunction in alcohol and opioid dependent men

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### ABSTRACT

One hundred subjects each who reported with a relapse of alcohol and opioid dependence were assessed using Relapse Precipitants Inventory-Hindi (RPI-Hindi), Presumptive Stressful Life Events Scale (PSLES) and Dysfunction Analysis Questionnaire (DAQ). The two groups were similar for substance related clinical profile and RPI-Hindi score profile. On PSLES, the alcohol group reported higher number of and stress due to desirable (but not undesirable, ambiguous or total) events in lifetime while, the opioid group reported higher number of and stress due to total, desirable and undesirable (but not ambiguous) events in the past one year. On DAQ opioid group reported higher total dysfunction and in social, family and cognitive areas. Regression analysis showed the contribution to relapse to be significant in terms of: the total number of life events in lifetime and in past one year in alcohol group; the number of and stress due to total life events in past one year and social dysfunction in opioid group and; the number of desirable and undesirable events in lifetime and in the past one year and stress due to desirable events in the past one year, when the two groups were combined together. Thus, the results suggest that relapse in alcohol and opioid dependence is associated with similar relapse precipitants but a differential dysfunction and, life events in terms of the number and type of events and associated stress in lifetime and in the past one year.

**Key words:** Alcohol dependence, Opioid, Stress, Life events

### INTRODUCTION

Research literature on factors contributing to a relapse in substance dependence has generally focused on either immediate contextual events (Litman et al., 1979) or life events (O'Doherty and Davies, 1987). Focusing on immediate contextual events like psychosocial events preceding alcoholic relapse, Litman et al. (1983 a & b) developed Relapse Precipitants Inventory that yielded three factors – decreased cognitive vigilance, unpleasant mood states and, euphoric states and external situations.

Paralleling research on life events in psychiatric disorders life events were also studied in relation to onset and severity of

substance use disorders (Neff, 1985; O'Doherty and Davies, 1987; Aneshensel et al., 1991; Cerbone & Larison, 2000). Treatment outcome research in substance abuse has also reported on lapses and relapses often following immediate contextual factors as well as life events (Rosenberg, 1983; O'Doherty and Davies, 1987; Wills et al., 1992; Cerbone & Larison, 2000).

However, the substance abuse research has not studied the comparative contribution of immediate contextual events and life events in the relapse of substance abuse. A variable that is often associated with life events and substance abuse relapse is dysfunction. Although dysfunction in substance abuse may be due to a number of reasons, contextual or life events can themselves

induce dysfunction that in turn leads to a relapse (Kosten et al., 1986).

The broad aim of the present research was to study relapse precipitants, life events and dysfunction in substance dependence. The more specific objectives were to study the profile and relative contribution of relapse precipitants, life events and dysfunction in men undergoing treatment for a relapse of alcohol or opioid dependence.

### MATERIAL AND METHOD

#### Sample

The study was conducted at the Drug De-addiction and Treatment Center (DDTC), Department of Psychiatry, Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh. The sample comprised 200 men undergoing in-/out-patient treatment for a relapse of alcohol (N=100) or opioid (N=100) dependence diagnosed as per the International Classification of Diseases – 10<sup>th</sup> revision (ICD-10) (World Health Organization, 1992). For inclusion, the subjects had to be 1. Participating based on an informed consent 2. Able to read and write Hindi, 3. Accompanied by an adult family member living with him continuously for at least last two years, 4. Free of any physical or psychiatric disorder affecting their ability to recall or report the required information and, 5. Free of alcohol or opioids for at least 4 weeks as confirmed by self-report, report of the family members and hospital staff and thin layer chromatography of urine for opioids.

For the purpose of this study relapse was defined as reemergence of ICD-10 diagnosis of substance dependence and remission was defined as complete abstinence from the substance/s of dependence (other than tobacco) for at least one month.

### INSTRUMENTS

The data was collected using the following instruments:

Clinical data sheet. Developed for this study by the authors, this data sheet recorded the socio-demographic variables like age, education, marital status etc. and clinical

cal variables like ages at onset of substance use and dependence, duration of substance use, duration of substance dependence, number of remissions and relapses and, minimum and maximum duration of remissions and relapses etc.

**Relapse Precipitants Inventory (RPI-Hindi)** (Mattoo & Malhotra, 2000). RPI-Hindi is a substance non-specific Hindi adaptation of 25-item alcohol-specific Relapse Precipitant Inventory in English (Litman et al., 1983 a & b). In RPI-Hindi 20 items give 3 factors (Negative affect, Positive affect, and Decreased cognitive vigilance) that are similar to the 3 factors of RPI (Unpleasant mood states, Euphoric states and external situations, and Decreased cognitive vigilance). The 3 factors of RPI-Hindi explained a variance of 54%, had Cronbach's alpha reliability ranging from 0.59 to 0.87, split half reliability of 0.71 and test-retest reliability ranging from 0.70 to 0.81. The mean±sd scores were: Factor I (11 items) 5.65±3.34, Factor II (6 items) 2.57±2.01, Factor III (3 items) 2.46±0.78 and the whole scale (25 items) 11.04±4.71. The score profile for the 3 factors and the whole scale was similar across alcohol and opioid dependence cases.

**Presumptive Stressful Life Events Scale (PSLES)** (Singh et al., 1984). Based on Stressful Life Events Scale of Holmes and Rahe (1967), PSLES comprises 51 life events relevant to the Indian setting. It has been standardized for 2 time frames - past one year and lifetime. The scores are calculated on two formats - number of life events and weighted stress scores. Based on their data, the authors reported that an adult person in India was likely to experience stressful life events on an average of 2 events (mean±sd: 1.90±2.62) in the past year and 10 events (mean±sd: 10.34±5.40) in a lifetime, without suffering any physical or psychological disturbance. The number and stress scores were calculated for desirable (10 items), ambiguous (10 items), undesirable (31 items), and total events (51 items) over the past one year and lifetime.

**Dysfunction Analysis Questionnaire (DAQ)** (Pershad et al., 1985). This scale measures dysfunction in clinical populations by covering five areas of daily life - social, vocational, personal, family and cognitive. With

10 items for each area, each item having 5 alternate answers scored from 1 to 5, the possible score ranges from 50 to 250 for each area and 200-500 for the total scale - a higher score indicates greater dysfunction. Standardization data from different diagnostic groups revealed test-retest and split-half reliabilities ranging from 0.77-0.97. The standard instruction to report on dysfunction in terms of the pre-illness and post-illness comparison was modified to 'pre-dependence and post-dependence' (ignoring the intervening remissions/abstinences).

## DATA ANALYSIS

The data was analyzed using chi-square test and student's t-test to compare the alcohol and opioid dependent groups. Multiple regression analysis was done to see how life events and dysfunction were associated with relapse of substance dependence in each group in terms of RPI-Hindi score.

## RESULTS

### Sample

The study subjects had an age range of 18-65 years (mean±sd: 37.56±9.48 years), were educated for 1-19 years (mean±sd: 11.54±3.54 years), had age at onset of substance use ranging 10-48 years (mean±sd: 20.33±5.51 years), had age at onset of substance dependence ranging 12-54 years (mean±sd: 26.26±7.57 years), had had 2-11 remissions (mean±sd: 2.61±1.30) and 1-11 relapses (mean±sd: 2.47±1.17), with the duration of remissions ranging 1-109 months (mean±sd: 14.39±16.62 months) and duration of relapses ranging 1-192 months (mean±sd: 26.61±30.90), and included 77% married subjects, 77% city dwellers and 57% joint family subjects. Alcohol and opioid dependent subjects were similar in demographic and clinical profile except that alcohol dependent subjects were older by about 8 years (mean±sd: 41.38±8.14 years vs 33.74±9.22 years,  $p=0.0001$ ), more often married (84% vs 70%,  $p=0.0186$ ), had later onset of substance dependence by about 5

years (mean±sd: 28.78±7.25 years vs 23.76±7.07 years,  $p=0.001$ ), had longer mean duration of remissions (17.00±20.01 months vs 11.78±12.70 months,  $p=0.029$ ), were more often from a nuclear family (52% vs 34%,  $p=0.01$ ) and were more often and better employed ( $p=0.004$ ) (Table 1).

## SCORE PROFILES

The profile of the whole sample and alcohol and opioid groups on various psychological measures was as follows (Table 2):

**RPI-Hindi:** The scores (number of relapse precipitants) ranged from 1-25 (mean±sd: 13.15±5.74) for the whole sample. The two groups were similar for the number and type of relapse precipitants.

**PSLES:** The total number of stressful life events in the past year ranged 0-17 (mean±sd: 4.87±3.67) with stress scores ranging 0-858 (mean±sd: 202.62±165.92). The range of number and stress score for different type of events was: desirable (0-4, 0-168), ambiguous (0-7, 0-276), Undesirable (0-11, 0-644) events in the past year. The two groups differed in that in the past year the alcohol group reported significantly lesser number of desirable events (mean±sd: 0.80±0.93 vs 1.22±1.40,  $p<0.05$ ), undesirable events (mean±sd: 1.58±2.02 vs 2.28±2.11,  $p<0.05$ ) and total events (mean±sd: 4.11±3.50 vs 5.59±3.71,  $p<0.01$ ). Correspondingly, the life events stress scores for the past year were significantly less in alcohol group for desirable events (mean±sd: 26.81±34.82 vs 43.88±55.54,  $p<0.01$ ), undesirable events (mean±sd: 86.67±113.29 vs 120.88±113.98,  $p<0.05$ ) and for total events (mean±sd: 169.05±159.04 vs 234.18±166.83,  $p<0.01$ ). The number of stressful life events in lifetime ranged 3-33 (mean±sd: 15.48±5.98) while the stress scores ranged 96-1579 (mean±sd: 654.18±280.37). The range of number and stress score for different type of events was: desirable (0-9, 0-347), ambiguous (0-9, 0-310), Undesirable (1-21, 36-1149) events in the lifetime. The two groups differed in that the alcohol group reported significantly higher number of desirable events (mean±sd: 5.33±1.69 vs 4.62±2.10,  $p<0.01$ ) and a corresponding

TABLE I : Sample Characteristics

| Variables                          |                             | Whole Sample (N=200) | Alcohol patients (N=100) | Opioid patients (N=100) | X <sup>2</sup> /t (P) |
|------------------------------------|-----------------------------|----------------------|--------------------------|-------------------------|-----------------------|
| Religion                           | Hindu                       | 114                  | 53                       | 61                      | 1.31                  |
|                                    | Sikh/Others                 | 86                   | 47                       | 39                      | (0.25)                |
| Occupation                         | Professional                | 20                   | 17                       | 3                       |                       |
|                                    | Clerk/Shop                  | 64                   | 37                       | 27                      |                       |
|                                    | Technical/Farmer            | 31                   | 10                       | 31                      | 20.64                 |
|                                    | Manual                      | 35                   | 19                       | 16                      | (0.0004)              |
|                                    | Unemployed/Student /Retired | 50                   | 17                       | 33                      |                       |
| Marital Status                     | Married/Other               | 154                  | 84                       | 70                      | 5.53                  |
|                                    | Unmarried                   | 46                   | 16                       | 30                      | (0.0186)              |
| Family Type                        | Nuclear                     | 86                   | 52                       | 34                      | 6.61                  |
|                                    | Joint/Other                 | 114                  | 48                       | 66                      | (0.01)                |
| Residence                          | Urban                       | 155                  | 80                       | 75                      | 0.716                 |
|                                    | Rural                       | 45                   | 20                       | 25                      | (0.397)               |
| Age (in years)                     | Mean                        | 37.56                | 41.38                    | 33.74                   | 6.21                  |
|                                    | S.D.                        | 9.48                 | 8.14                     | 9.22                    | (0.0001)              |
| Education (in years)               | Mean                        | 11.54                | 11.72                    | 11.36                   | 0.72                  |
|                                    | S.D.                        | 3.54                 | 4.12                     | 2.85                    | (0.474)               |
| Age at Onset (in years)            | Mean                        | 20.33                | 20.96                    | 19.70                   | 1.62                  |
|                                    | S.D.                        | 5.51                 | 5.54                     | 5.54                    | (0.107)               |
| Substance Dependence               | Mean                        | 26.26                | 28.78                    | 23.76                   | 7.07                  |
|                                    | S.D.                        | 7.57                 | 7.25                     | 7.07                    | (0.001)               |
| Remissions (N)                     | Mean                        | 2.61                 | 2.60                     | 2.61                    | 0.05                  |
|                                    | S.D.                        | 1.30                 | 1.23                     | 1.36                    | (0.096)               |
| Relapses (N)                       | Mean                        | 2.47                 | 2.45                     | 2.49                    | 0.24                  |
|                                    | S.D.                        | 1.17                 | 1.10                     | 1.24                    | (0.81)                |
| Duration (in months) of Remissions | Mean                        | 14.39                | 17.00                    | 11.78                   | 2.20                  |
|                                    | S.D.                        | 16.92                | 20.01                    | 12.70                   | (0.029)               |
| Relapses                           | Mean                        | 26.61                | 26.57                    | 26.65                   | 0.02                  |
|                                    | S.D.                        | 30.90                | 33.46                    | 28.27                   | (0.98)                |

higher stress score for the same (mean±sd: 207.78±66.0 vs 178.4±85.31,  $p<0.01$ ).

**DAQ:** The dysfunction scores (mean±sd) in the whole group ranged from a low of 64.14±15.81 for cognitive area to a high of 71.00±14.15 for personal area, with total dysfunction score of 343.77±73.12. The two groups differed significantly (all  $p<0.05$ ) in that alcohol group reported lower total dysfunction scores (mean±sd: 331.51±71.90 vs 356.04±72.62) as also scores in social (mean±sd: 67.76±17.28 vs 73.82±16.50), family (mean±sd: 67.17±16.63 vs 72.66±16.58) and cognitive areas (mean±sd:

61.48±15.26 vs 66.80±15.97).

### MULTIPLE REGRESSION ANALYSIS

Multiple regression analysis showed that relapse precipitant score had significant association with certain specific life event and dysfunction variables. For the whole sample the life events in past year explained relapse in terms of total number of undesirable life events (12%,  $p<0.00001$ ), total number of desirable life events (12%,

$p<0.00001$ ), stress score of all life events (4%,  $p<0.01$ ) and stress score of desirable life events (3%,  $p<0.005$ ). The life events in lifetime explained relapse in terms of total number of life events (15%,  $p<0.005$ ), total number of undesirable life events (14%,  $p<0.0001$ ) and total number of desirable life events (8%,  $p<0.0001$ ). Dysfunction explained relapse in terms of social dysfunction only (12%,  $p<0.0001$ ). In alcohol group relapse was explained in terms of total number of life events in lifetime (9%,  $p<0.01$ ) and total number of life events in the past year (4%,  $p<0.05$ ). In opioid group relapse was explained in terms of total stress score in past year (16%,  $p<0.01$ ), total number of life events in the past year (8%,  $p<0.005$ ) and dysfunction in social area (12%,  $p<0.01$ ) (Table 3).

### DISCUSSION

In the context of stress being implicated for substance use and dependence, and relapse of substance dependence (O'Doherty & Davies, 1987; Cerbone & Larison, 2000), the present research aimed at studying the profile and relative contribution of immediate contextual factors (RPI-Hindi), life events (PSLES) and dysfunction (DAQ) in men undergoing treatment for relapse of alcohol or opioid dependence. The sample was representative of the patients attending our center (PGIMER, 1993).

The alcohol and opioid groups were comparable except that the alcohol group was significantly older, more often married and from a nuclear family, more often and better employed, had a later onset of substance dependence and, had longer duration of remissions. Later age at onset of dependence, higher current age, higher frequency of being married and higher frequency of and better employment in alcohol group, compared to opioid dependence, can be explained by the gradual onset of alcohol dependence permitting the person to advance in age, complete education, take up and improve employment and get married. However, excess of nuclear family background and longer duration of remissions cannot be explained.

The comparability of RPI-Hindi scores

**TABLE 2 : Score Profile of Relapsed Alcohol and Opioid Dependent men ON Relapse Precipitants Inventory (RPI), Presumptive Stressful Life Events scale (PSLES) and Dysfunction Analysis Questionnaire (DAQ)**

| Variables               | Whole Sample<br>(N=200) |        | Alcohol patients<br>(N=100) |        | Opioid patients<br>(N=100) |        | t      |
|-------------------------|-------------------------|--------|-----------------------------|--------|----------------------------|--------|--------|
|                         | Mean                    | S.D.   | Mean                        | S.D.   | Mean                       | S.D.   |        |
| <b>RPI</b>              |                         |        |                             |        |                            |        |        |
| Negative Mood States    | 5.65                    | 3.34   | 5.45                        | 3.38   | 5.85                       | 3.30   | 0.85   |
| Positive Mood States    | 2.57                    | 2.01   | 2.75                        | 1.95   | 2.38                       | 2.06   | 1.30   |
| Cognitive Vigilance     | 2.46                    | 0.78   | 2.49                        | 0.75   | 2.42                       | 0.82   | 0.63   |
| Total Inventory         | 13.15                   | 5.774  | 13.22                       | 5.65   | 13.08                      | 5.85   | 0.17   |
| <b>PSLES: Past Year</b> |                         |        |                             |        |                            |        |        |
| <i>Number of Events</i> |                         |        |                             |        |                            |        |        |
| Desirable               | 1.02                    | 1.21   | 0.80                        | 0.93   | 1.22                       | 1.40   | 2.40*  |
| Ambiguous               | 1.91                    | 1.65   | 1.72                        | 1.69   | 2.09                       | 1.60   | 1.33   |
| Undesirable             | 1.94                    | 2.09   | 1.58                        | 2.02   | 2.28                       | 2.11   | 2.51*  |
| Total                   | 4.87                    | 3.67   | 4.11                        | 3.50   | 5.59                       | 3.71   | 2.84** |
| <i>Stress Score</i>     |                         |        |                             |        |                            |        |        |
| Desirable               | 35.61                   | 46.72  | 26.81                       | 34.82  | 43.88                      | 55.54  | 2.58** |
| Ambiguous               | 62.71                   | 55.27  | 55.27                       | 56.45  | 69.42                      | 53.45  | 1.57   |
| Undesirable             | 104.30                  | 114.64 | 86.67                       | 113.29 | 120.88                     | 113.98 | 2.25*  |
| Total                   | 202.62                  | 165.92 | 169.05                      | 159.04 | 234.18                     | 166.83 | 2.78** |
| <b>PSLES: Lifetime</b>  |                         |        |                             |        |                            |        |        |
| <i>Number of Events</i> |                         |        |                             |        |                            |        |        |
| Desirable               | 4.98                    | 1.93   | 5.33                        | 1.69   | 4.62                       | 2.10   | 2.63** |
| Ambiguous               | 3.86                    | 1.82   | 3.73                        | 1.83   | 3.99                       | 1.80   | 1.01   |
| Undesirable             | 6.65                    | 3.83   | 6.34                        | 3.47   | 6.95                       | 4.17   | 1.13   |
| Total                   | 15.48                   | 5.98   | 15.40                       | 5.41   | 15.56                      | 6.53   | 0.19   |
| <i>Stress Score</i>     |                         |        |                             |        |                            |        |        |
| Desirable               | 193.08                  | 77.49  | 207.78                      | 66.01  | 178.43                     | 85.31  | 2.73** |
| Ambiguous               | 124.37                  | 61.54  | 118.80                      | 61.58  | 129.92                     | 61.30  | 1.28   |
| Undesirable             | 336.73                  | 209.55 | 321.54                      | 192.57 | 351.94                     | 225.19 | 1.03   |
| Total                   | 654.18                  | 280.37 | 648.12                      | 253.20 | 660.23                     | 306.31 | 0.30   |
| <b>DAQ</b>              |                         |        |                             |        |                            |        |        |
| Vocational              | 67.94                   | 17.35  | 65.67                       | 17.44  | 70.20                      | 17.04  | 1.86   |
| Personal                | 71.00                   | 14.15  | 69.43                       | 14.30  | 72.56                      | 13.90  | 1.57   |
| Family                  | 69.91                   | 16.79  | 67.17                       | 16.63  | 72.66                      | 16.58  | 2.34*  |
| Cognitive               | 64.14                   | 15.81  | 61.48                       | 15.26  | 66.80                      | 15.97  | 2.41*  |
| Total                   | 343.77                  | 73.12  | 331.51                      | 71.90  | 356.04                     | 72.62  | 2.40*  |

across the two groups suggests that the contribution of immediate contextual factors to relapse of dependence was not substance specific. The results are similar to the results obtained on comparing alcohol and opioid dependence groups while developing the RPI-Hindi as a tool that was generic and not substance-specific (Mattoo & Malhotra, 2000). However, including one study from India the previous literature on this aspect is all alcohol dependence based, thus precluding a comparison of substance specificity (Litman et al., 1979; Litman et al., 1983 a & b; Malhotra et al., 1999). In terms of life events, in the past one year

the opioid group reported significantly higher number of life events as well as stress from these events, including desirable, undesirable and total events; the number of and stress from ambiguous life events being similar. In contrast, the number and the stress profile of lifetime life events were similar across the two groups except that the alcohol group reported significantly higher number of and greater stress from desirable life events. The finding of higher stress from desirable events in relapsed alcohol dependence cases is in contrast to other studies reporting on substance abusers. Aneshensel

et al. (1991) reported negative life events increasing the odds of substance use disorder differentially in men and women; events to self affecting men and not women and events to significant others affecting women more than men. Rosenberg (1983) reported higher negative event scores, while Billings and Moos (1983) reported twice as many negative and only half as many positive events in relapsed compared to non-relapsed alcoholics. Krueger (1981) while studying relapse in heroin addicts concluded, "the number and magnitude of stressful life events are significantly related

**TABLE 3** : Regression analysis showing Presumptive Stressful Life Events Scale (PSLES) and Dysfunction Analysis questionnaire (DAQ) variables having significant association with relapse in alcohol and opioid dependent MEN (N=200)

| Variable                | Whole Group<br>(N=200) |                |                   | Alcohol Group<br>(N=100) |                |                   | Opioid Group<br>(N=100) |                |                   |
|-------------------------|------------------------|----------------|-------------------|--------------------------|----------------|-------------------|-------------------------|----------------|-------------------|
|                         | R                      | R <sup>2</sup> | F                 | R                        | R <sup>2</sup> | F                 | R                       | R <sup>2</sup> | F                 |
| <b>PSLES: PAST YEAR</b> |                        |                |                   |                          |                |                   |                         |                |                   |
| Total events (N)        | -                      | -              | -                 | 0.21                     | 0.04           | 4.06 <sup>1</sup> | 0.27                    | 0.08           | 8.09 <sup>4</sup> |
| Undesirable events (N)  | 0.34                   | 0.12           | 8.38 <sup>4</sup> | -                        | -              | -                 | -                       | -              | -                 |
| Desirable events (N)    | 0.35                   | 0.12           | 6.62 <sup>2</sup> | -                        | -              | -                 | -                       | -              | -                 |
| <b>Stress score</b>     |                        |                |                   |                          |                |                   |                         |                |                   |
| Total                   | 0.20                   | 0.04           | 8.07 <sup>4</sup> | -                        | -              | -                 | 0.40                    | 0.16           | 5.92 <sup>2</sup> |
| Desirable Events        | 0.18                   | 0.03           | 6.66 <sup>2</sup> | -                        | -              | -                 | -                       | -              | -                 |
| <b>PSLES: LIFE-TIME</b> |                        |                |                   |                          |                |                   |                         |                |                   |
| Total events (N)        | 0.38                   | 0.15           | 7.94 <sup>3</sup> | 0.30                     | 0.09           | 4.60 <sup>2</sup> | -                       | -              | -                 |
| Undesirable events (N)  | 0.37                   | 0.14           | 7.66 <sup>3</sup> | -                        | -              | -                 | -                       | -              | -                 |
| Desirable events (N)    | 0.29                   | 0.08           | 7.97 <sup>4</sup> | -                        | -              | -                 | -                       | -              | -                 |
| <b>DAQ</b>              |                        |                |                   |                          |                |                   |                         |                |                   |
| Social Area             | 0.34                   | 0.12           | 7.32 <sup>3</sup> | -                        | -              | -                 | 0.35                    | 0.12           | 6.56 <sup>2</sup> |

<sup>1</sup>P<0.05, <sup>2</sup>P<0.01, <sup>3</sup>P<0.005, <sup>4</sup>P<0.0001

to patients not adhering to methadone maintenance and returning to heroin use", even though no comparative data was quoted. In contrast, in case of tobacco dependence while Gunn (1983) reported that recent life stress three months prior to treatment was correlated positively with failure to quit smoking in men (not in women), Prochaska and Lapsanski (1982) reported relapse being associated with more positive life change scores but not total or negative life change scores. The findings of this last study, similar to the findings in alcohol dependent subjects of the present study, were explained in terms of motivation altering role of desirable events or changes in terms of 'for substance use and against abstinence'. This explanation remains debatable. The only conclusion that can be drawn with confidence is that life events often do influence the substance use patterns. The direction and intensity of altered use, specificity of the substance, type of the life events, demographic and clinical variables, and the underlying explanations - all remaining speculative (Hoffmann & Su, 1998; Cerbone & Larison, 2000).

While vocational and personal dysfunction was similar across the two groups, compared to alcohol group the opioid

group reported significantly higher total dysfunction as also cognitive, family and social dysfunction. Is this a reflection of the opioid dependence being more disruptive than alcohol dependence, at least in the short run? Since DAQ measures dysfunction in terms of before and after the illness the reported dysfunction may not be capturing the dysfunction exactly in substance dependence subjects who may go through significant remissions during the course of their dependence.

The regression analysis showing significant contribution to relapse of only total number of life events in the past year as well as the lifetime in alcohol group and total number of life events in the past year, total stress score from events in the past year and social dysfunction in opioid group can only be speculated upon. Is it that alcohol dependence being a slow and longer affair, the life events over the lifetime turn out to be more important contributors to relapse? Comparatively, opioid dependence developing more quickly more recent life events contribute more to relapse? However, the findings of the number of desirable and undesirable life events in lifetime as well as the past year and the stress from total as well as desirable life events in the past year contributing to relapse find wide

support in the literature (Neff, 1985; O'Doherty and Davies, 1987; Aneshensel et al., 1991; Cerbone & Larison, 2000). The finding of social dysfunction as a significant contributor to relapse also finds indirect support from the previous literature (Kosten et al., 1986).

In summary, the results of this study suggest that relapse in alcohol and opioid dependence is associated with similar relapse precipitants but a differential dysfunction (higher dysfunction in opioid group) and life events in terms of the number and type of events and associated stress in lifetime (more in alcohol group) and in the past one year (more in opioid group). These results must be accepted with in the limitations of a retrospective study-design and the sample comprising Hindi reading/writing men from one center only.

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