

# REPORTS OF ATTEMPTED SUICIDE AMONG BRAZILIAN ADDICTS

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Summary: Both substance dependence and depressive mood seem to be associated with increased suicidal risk. Clinical information on suicide attempts and depressive symptoms were obtained from a sample of 211 psychoactive substance dependents attending a university clinic program for addicts in Brazil. Forty-nine subjects (23.4 %) had attempted suicide at least once and frequency of reporting attempts was 4.32 times greater among women than among men. Male addicts also tended to engage in potentially more dangerous attempts methods than women. Depressive male addicts were 2.17 times more likely to have attempted suicide than non-depressive addicted men. Among women, no association could be established between having attempted suicide and the presence of depression. Substance addicts have a relatively high risk of attempting suicide and the co-occurrence of depression seems to increase prevalence of suicidal behavior among men.

Key words: Attempted suicide - Addiction - Depression – Assessment – Scales

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Substance use disorders are strongly associated with suicidal behavior (Anderson,Howard, & Walker,1995; Harris & Barraclough,1997). Depression is a comorbid condition commonly identified among addicts and depressive subjects are particularly prone to attempt suicide (Angst,Angst, & Stassen,1999). Some studies suggest that substance use disorders represent additional risk to suicidality among mood disordered patients (Mann,Orquendo, & Underwood,1999).

We examined the frequency of attempted suicide in a sample of substance dependents in Sao Paulo, Brazil. Subjects were also administered a questionnaire aiming to identify depression.

### Method

The sample comprised 211 psychoactive substance users fulfilling DSM-IV diagnostic criteria for dependence, being 185 men (87.7 %) and 26 women (12.3 %). The mean age was  $26.3 \pm 9.8$  years old. One hundred forty-two (67.3 %) were single and 69 (32.7 %) were married. They were all outpatients attending a university clinic program for addiction (PROAD) in São Paulo, Brazil. Data were obtained from detailed clinical records gathered by the time of their first admission. They were also requested to give specific information regarding patterns of psychoactive substance use, suicide attempts and depressive symptoms (Center for Epidemiologic Studies Depression Scale).

The Center for Epidemiologic Studies Depression Scale (CES-D) was devised by the National Institute of Mental Health to identify persons in the community who are probably depressed (Radloff,1977). In this 20-item scale the time frame for reporting symptoms is the past week, so subjects were asked to indicate how frequently in the past seven days they experienced a particular symptom (0 = rarely or none of the time; 1 = some or little of the time; 2 = occasionally or a moderate amount of time; 3 = most or all of the time). Positive items (questions 4, 8, 12 and 16) are reverse scored. Total scores range from 0 to 60, cut-off for depression 15/16. Since its development, the CES-D has been used in many different countries and settings (Roberts,Andrews,Lewinsohn, & Hops,

1990; Iwata, Saito, & Roberts, 1994; Snyder & Maldonado, 1994; Silveira & Jorge, 2002).

Descriptive statistics were followed by the correlations between variables. Strength of associations was tested with chi-square for categorical variables.

## Results

According to DSM-IV criteria the frequency of substance dependence in the sample was 21 % for crack cocaine, 16.3 % for alcohol, 16 % for snorted cocaine, 9.3 % for cannabis, 1.3 % for tranquilizers and 1.3 % for solvents. Fifty-three subjects (25.2 %) were dependent on more than one substance. Intravenous drug use was reported in only 8.8 % of the sample.

Using the Center for Epidemiologic Studies Depression Scale (CES-D), 75 addicts (35.5 %) were depressed (cut-off 16 or above) and in 32 of them (15.2 %) depression was severe (cut-off 24 or above).

Forty-nine subjects (23.2 %) reported attempting suicide at least once, 36 men (19.5 % of male addicts) and 13 women (50 % of female addicts). Frequency of report was 4.32 times greater among women than among men (chi-square = 6.3; OR = 2.57 ; CI: 1.1 –5.76;  $p < 0.02$ ). Among men hanging was the most prevalent type of attempt (22.2 %) whereas women most frequently reported drug ingestion (38.5 %). Jumping from a high place was exclusively reported by male addicts (11.1 %), whereas poisoning with gas (15.4 %) was reported only by women. Firearms attempts were more frequently reported by men (19.4 %) than by women (7.7 %) (Table 1).

No other significant demographic differences could be detected between those who reported ever attempting suicide and those who did not report it. No association could be established between having attempted suicide and being dependent on any given substance.

Among men, depressive addicts were 2.17 times more likely to report having attempted suicide than non-depressive addicts (chi-square = 4.998; CI: 1.09 - 4.11;  $p < 0.05$ ). Among women, no associations could be established between having reported attempted suicide and the presence of depression .

## Discussion

We observed a significant association of depressive symptoms and suicide attempts among men. The two-fold greater suicidal risk in substance dependents with depressive symptoms suggests additional risk related to the presence of depression. In a sample of 298 cocaine abusers seeking treatment an American study a 22.5 % rate of lifetime suicide attempts was reported (Rounsaville, Anton, Carroll, Budde, Prusoff, & Gawin,1991). Some authors suggest that either alcohol dependence or cocaine use is associated with increased suicidal behavior (Petronis, Samules, Moscicki, & Anthony,1990) and that the co-occurrence of both is related to a higher prevalence of this self-destructive behavior (Cornelius, Thase, Salloum, Cornelius, Black, & Mann,1998).

Among the limitations of the present study we would like to point out that, as a consequence of the small number of women in the sample, some gender-related differences may have not reached statistical significance; since a *suicide attempt* may constitute an “*unsuccessful suicide*”, in a cross-sectional study like this some results may be due to survivor bias; the design of the investigation does not allow us to conclude if depressive symptoms precede or follow suicide attempts, leaving no room for any cause-effect interpretation of the detected association. Furthermore, since these results are self-reported by the patients unaccuracy of information has to be considered as a possibility. Nevertheless, results are similar to those from other cultures and countries. The high frequency of suicide attempts observed in this clinical population justifies the need of further studies aiming at identifying suicide risk factors among substance dependents.

Table 1. Gender and type of reported suicide attempt in a sample of Brazilian substance dependents (N = 49 ).

	Men		Women		Total	
	%	N	%	N	%	N
Firearms	19.4	7	7.7	1	16.3	8
Hanging	22.2	8	23.1	3	22.4	11
Jumping from a high place	11,1	4	-		8.2	4
Gas poisoning	-	-	15.4	2	4.1	2
Cutting (wrist laceration)	13.9	5	7.7	1	12.2	6
Drug ingestion	19.4	7	38.5	5	24.5	12
Other	13.9	5	7.7	1	12.2	6

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