

Original research article

Psychiatric Evaluation of Patients Treated for Alcohol Dependence Syndrome in A Tertiary Care Hospital

Dr. G. Santhosh Kumar

Assistant Professor, Department of Psychiatry, Prathima Institute of Medical Sciences, Naganoor, Karimnagar, Telangana State.

Corresponding Author: Dr. G. Santhosh Kumar

Abstract

Background: Alcohol consumption problems cause a considerable number of social, health, and economic effects in India. Despite the growing destruction, there remains a significant treatment gap for alcohol use disorder in our nation. The stigma attached to the habit and the reluctance to seek treatment is two factors contributing to this discrepancy. This study aimed to determine if these characteristics were associated with the result of complete abstinence, pre-treatment, and treatment data were prospectively collected.

Methods: The present study was conducted in the adult rehabilitation unit of the Department of Psychiatry, Prathima Institute of Medical Sciences, Naganoor, Karimnagar. Institutional Ethical approval was obtained for the study. Written informed consent was obtained from the patient's caregiver at the beginning of the study. The International Classification of Diseases and Related Health Problems (ICD-10) diagnostic criteria were used to identify alcohol dependency syndrome in new patients.

Results: The SADD, Rotter's locus of control, and CIWA-Ar scores of the n=40 participants. A total of n=34 participants (85%) had a high dependence score of more than or equal to 20. The remaining 15 participants (15%) had a medium dependence score. Rotter's locus of control (external locus): The scores ranged from 11 to 23, with a mean of 17.01 and a standard deviation of 1.705. CIWA-Ar: The CIWA-Ar scores ranged from 1 to 45, with a median score of 7. A total of 65% of participants had a CIWA-Ar score of less than 10 and 35% of participants had a score of 10 or more.

Conclusion: In this cohort of newly admitted alcohol-dependent patients from a tertiary care psychiatric unit of a general hospital, 40% of participants had maintained 100% abstinence after three months of conventional therapy. Regular follow-up hospital visits, good medication compliance, use of Disulfiram, receiving a medication-and-psychological-management regimen, and a less severe form of dependence, were the factors associated with abstinence.

Keywords: Alcohol Abuse, Abstinence, Disulfiram, Substance Abuse

Introduction

Substance use problems are extremely important to both public health and, in particular, mental health practitioners. Around the world, a lot of studies have been done in this area. ^[1] Drinking habits develop and evolve as a result of cultural and social influences. There will likely be a rise in the amount of alcohol that people consume on average in the world's most populated regions, including Southeast Asia and India. ^[2] In India, alcohol use has been rising in recent years. According to a community-based cross-sectional study conducted in Kolkata, India, 65.8% of respondents were current drinkers, of whom 14% were alcohol addicted, 8% used alcohol harmfully, and 78% did not. A whopping 41% of participants admitted to drinking in public and at work. Only 16 percent of drinkers expressed worries, and 62 percent

of those who were dependent displayed clinical indicators of long-term alcohol use.^[3] According to studies, the adverse effects of alcohol consumption in India are associated with earlier beginning, early dependency development, familial history of alcohol use, a variety of psycho-social issues, and less frequent follow-up with health care.^[4] Additionally, studies have shown that outcomes are unaffected by factors such as socioeconomic position, marital status, religion, degree of education, social support, concomitant mental or physical disease, kind of therapy, and the number of days spent receiving inpatient care.^[4]

The early beginning of drinking behavior brought on by the familial clustering of alcoholism eventually results in major issues from alcohol abuse and ineffective treatment methods.^[1] Longer inpatient stays and more income were linked to better outcomes, according to follow-up research conducted in India.^[5] The perception of social support in the Indian setting seems to be harmful to maintaining abstinence.^[5] Pre-treatment characteristics were not linked to either a positive or poor result in a naturalistic uncontrolled follow-up research conducted in Pondicherry. However, it was shown that the length of time that Disulfiram was used was linked to a successful outcome.^[6] Family therapy and pharmaceutical intervention have been found to work well together, reducing the risk of relapse and lengthening abstinence time.^[7] According to several other research, cravings are a negative aspect of any drug relapse. The duration of the abstinence time has an adverse relationship with the frequency of cravings.^[1] However, there is a paucity of information from longitudinal research examining the course and outcome of alcohol use disorders in India. The current study looked at variables that were related to total abstinence following a three-month follow-up. To determine if these characteristics were associated with the result of complete abstinence, pre-treatment, and treatment data were prospectively collected.

Material and Methods

The present study was conducted in the adult rehabilitation unit of the Department of Psychiatry, Prathima Institute of Medical Sciences, Naganoor, Karimnagar. Institutional Ethical approval was obtained for the study. Written informed consent was obtained from the patient's caregiver at the beginning of the study. The International Classification of Diseases and Related Health Problems (ICD-10) diagnostic criteria were used to identify alcohol dependency syndrome in new patients. Those who met the inclusion and exclusion criteria were asked to participate in the study. At the initial visit, the patient and the primary carer both provided written informed consent to participate. This included authorization to speak with them, record information from their medical records, schedule a specific time for the three-month follow-up interview, call them the week before the second visit to remind them of the appointment, and conduct a telephone review should they be unable to attend.

Inclusion Criteria

1. All new adult patients with the primary diagnosis of alcohol dependence syndrome.
2. Patients giving valid informed consent to participate.

Exclusion criteria

1. Patients with co-morbid major psychiatric disorders.
2. Patients with permanent cognitive deficits.

Details about alcohol usage patterns and sociodemographic information were gathered. Age, gender, educational level, religion, employment, socioeconomic position, family structure,

type of dwelling, distance from hospital and liquor store, level of family support, and physical co-morbidities were among the socio-demographic characteristics. A family history of alcohol abuse and neuropsychiatric disorders was disclosed. The participant's historical history of alcohol use, including the age at which it began, the length of the pattern of dependency, the type of alcohol used, how often per week, how much alcohol was used daily, and how many times in the past de-addiction therapy was administered. Any recent negative life events were noted, as well as the existence or absence of any legal issues brought on by alcohol usage. Utilizing the Clinical Institute of Withdrawal Assessment Scale, the withdrawal symptoms and severity were evaluated. Using the Short Alcohol Dependence Data Questionnaire, the severity of alcohol usage was evaluated. Rotter's scale for a locus of control was used to evaluate the locus of control. These evaluations were conducted at the time of recruitment or as soon as the patient's cognitive state permitted testing to proceed without interruption. One week before the follow-up appointment, the patient was called by phone to be reminded to show up. Interviews with the patient and the patient's primary carer were done at this visit. We conducted phone interviews with patients and carers who were unable to appear in person for a follow-up interview owing to unforeseen circumstances. Their medical histories were examined. For the final analysis, data from the chart review and the most recent follow-up visit were taken. To prevent tracking down the individual, all information was kept private and personal identifiers were eliminated.

Statistical analysis: The individuals' sociodemographic profile was examined using descriptive statistics. For the categorical variables, frequencies were determined. For the continuous variables, means and standard deviations were determined. Bar plots and histogram plots were used to display the categorical and continuous data, respectively. Fisher's exact test and the Chi-square test were used to see whether there was a relationship between the categorical variables.

Results

Out of the total n=40 cases included in the study all the cases the study were males out the cases included in the study n=30 cases were aged between 31 – 40 years and n= 10 were aged above 40 years. The age range of the patients included in the study was 23 – 61 years and the mean age of the cohort was 39.91 ± 8.9 years. The educational level of participants ranged from no formal education in 12.5% of cases and a majority of the cases, 30% were educated up to primary school levels. 20% of cases studied up to intermediate levels and 7.5% were professional details depicted in figure 1.

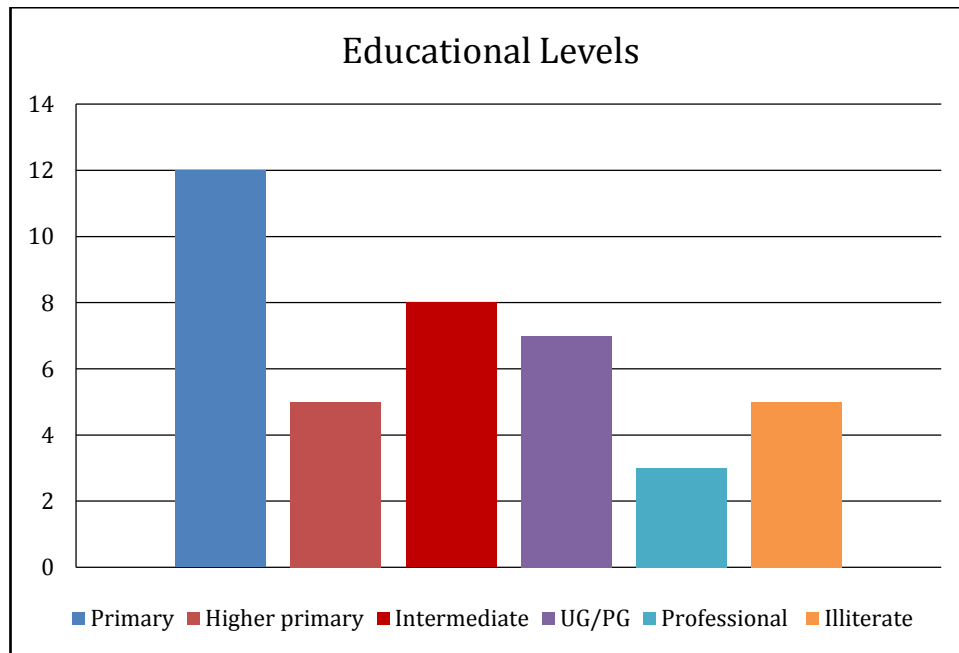


Figure 1: Educational status of cases included in the study.

Based on the marital status out of $n=40$ cases $n=30$ (75%) cases were married and $n=8$ (20%) cases were single and $n=2$ (5%) cases were separated. The occupational status of participants ranged from unemployment to professional employment. The majority of participants ($n=22$, 55%) had unskilled employment. $N=1$ participants (2.5%) had professional employment.

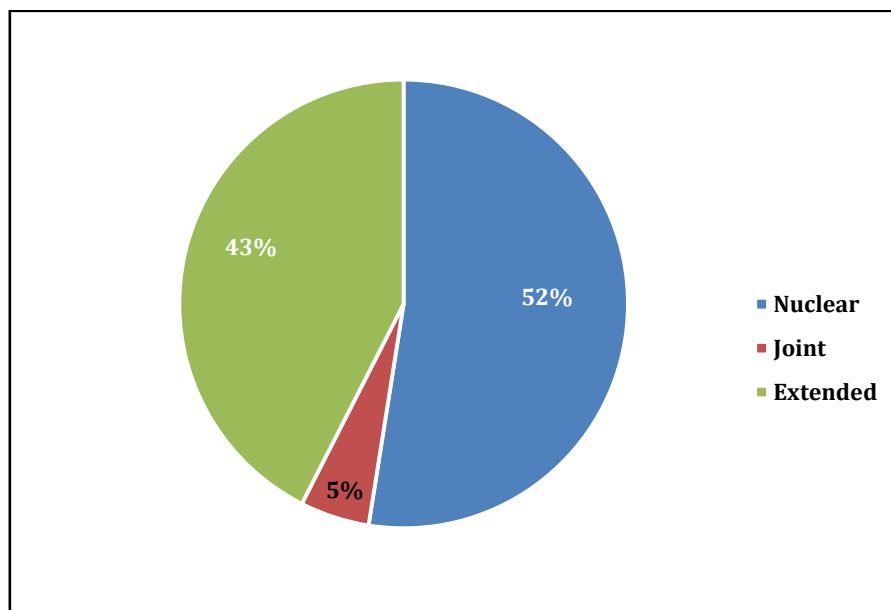


Figure 2: showing the type of family in the cohort of the study.

Type of family: $n=21$ participants belonged to a nuclear family, $n=17$ participants belonged to an extended family, and $n=2$ (4 %) participants belonged to a joint family (figure 2). *Type of residence:* The majority of participants $n=24$ (60%) resided in a rural area and the remaining $n=16$ participants (40%) resided in an urban area. *Socio-economic Status:* The majority of participants belonged to lower socioeconomic status ($n=21$, 52.5%), ($n=18$ 45%) belonged to middle socioeconomic status, and only $n=1$ (2.5 %) belonged to the upper middle class.

Distance of area of residence from the hospital: 65% of participants lived within 25 kilometers of the hospital and 35 (35.7%) lived between 25 - 50 kilometers distance from the hospital. The minimum distance was 1 kilometer and the maximum distance was 150 kilometers with a median of 25.5 kilometers. *Distance of liquor shop from the area of residence:* 62.5% of participants lived within 1 kilometer of the liquor shop and 35 (37.5 %) lived beyond 1 kilometer from the liquor shop. The minimum distance was 150 meters and the maximum was 10 kilometers with a median of 0.8 kilometers. *Adequate family support:* N=38(95%) of the cases had adequate family support and n=5(5.0%) told that they did not have adequate family support.

Table 3: History of Alcohol use in the cases of the study

<i>Variable</i>	<i>Frequency(n)</i>	<i>Percentage (%)</i>
<i>Age of onset of Alcohol use (years)</i>		
Below 25 yrs.	28	70.0
> 26 yrs.	12	30.0
<i>The total duration of Alcohol use</i>		
≤ 10 yrs.	12	30.0
11 – 19 yrs.	17	42.5
≥ 20 yrs.	11	27.5
<i>The total duration of Alcohol dependence</i>		
≤ 10 yrs.	75	76.5
≥ 11 yrs.	23	23.5

The age of beginning of alcohol use varied widely among the participants of the study ranging from 19 years to 46 years the mean age of onset of alcohol consumption was 32.5 years. N=28 (70%) of cases had started using alcohol before the age of 25 years and 30 participants (30.0 %) at or after 25 years of age (table 1).

Table 4: Results of Alcohol dependence data questionnaire

<i>Scale</i>	<i>Frequency</i>	<i>Percentage</i>
<i>SADD score</i>		
10 -19 medium dependence	06	15
≥ 20 high dependence	34	85
<i>Clinical Institute Withdrawal assessment of alcohol scale (CIWA- Ar)</i>		
≤ 10	26	65
≥ 10	34	35
<i>Rotter's score</i>		
12-23 (external)	24	60
<i>Type of Alcohol used</i>		
Brandy	22	55.0
Whiskey	3	5.0
Rum	6	15.0
Others	9	22.5

SADD, Rotter's locus of control, and CIWA-Ar scores of the n=40 participants. A total of n=34 participants (85%) had a high dependence score of more than or equal to 20. The remaining 15 participants (15%) had a medium dependence score. Rotter's locus of control

(external locus): The scores ranged from 11 to 23, with a mean of 17.01 and a standard deviation of 1.705. CIWA–Ar: The CIWA-Ar scores ranged from 1 to 45, with a median score of 7. A total of 65% of participants had a CIWA–Ar score of less than 10 and 35% of participants had a score of 10 or more (Table 4).

Table 5: Abstinence status post 3 months follow up in the cases of the study.

<i>Variable</i>	<i>Frequency</i>	<i>Percentage</i>
Abstinence		
Complete abstinence	16	40
Incomplete abstinence	24	60
Total number of lapses		
One/two	10	62.5
> 3	06	37.5

N=16 cases were abstinent at the end of 3 months follow-up period and n=24 cases had incomplete abstinence at the end of the follow-up period. Among the cases of lapse, 62.5% had lapsed once or twice and more than 3 lapses were recorded in 37.5% of cases. N=1 case received inpatient care for the alcohol withdrawal symptoms and the remaining n=39 received treatment on an outpatient basis. In the emergency room n=5(12.5%) cases were received with complicated alcohol withdrawal states. Most of the cases n=21(52.5%) received pharmacological treatment. And remaining n=17(42.5%) received both pharmacological and non-pharmacological interventions. The remaining n=2(5.0%) received only nonpharmacological treatment.

Discussion

In this study, we found the age range of the patients included in the study was 23 – 61 years and the mean age of the cohort was 39.91 ± 8.9 years. All India Institute of Medical Sciences, New Delhi (AIIMS) 2000-2001 indicated that alcohol dependency was more common in men (21%), but it was less common in women (less than 5%). However, there is a knowledge gap on alcoholism in women in India. ^[8] Alcoholism in women is inevitably linked to a high prevalence of mental illnesses and traumatic early life experiences. According to studies, women with depression had a 4.1 odds ratio for developing alcohol misuse compared to men's 2.67 odds. ^[9] There was no formal education in 12.5% of cases and in the majority of the cases, 30% were educated up to primary school levels. 20% of cases studied up to intermediate levels. The odds of acquiring alcohol dependency are 6.34 times higher for school dropouts than for degree holders, according to studies conducted in the West. ^[10] When compared to college graduates, college dropouts have a 3.01 relative chance of becoming alcohol dependent. Excessive alcohol consumption was seen in those with low educational backgrounds. Alcohol-related issues were prevalent in the group with lower levels of schooling. More people in the group with intermediate education had a psychological dependency. ^[11] Alcohol usage was shown to be independently correlated with low educational attainment in the Hungarian population. ^[12] Higher educational groups in China had a lower rate of alcohol usage than lower educational groups, according to a survey of the population. ^[13] 75% of alcohol users in this study were married and 5% of cases were separated. There is research that indicates married males have a higher risk of alcohol usage. According to a study conducted in rural North India, married men had a 2.51 relative risk of alcohol use, compared to unmarried males. ^[14] Men are reluctant to seek treatment for alcohol use disorder, according to community research in India, because of stigma and lack of faith in

the medical establishment. These men's wives and close relatives are the ones who support them in obtaining therapy.^[15] In the current study, 52.5% of cases of alcohol abuse belonged to the nuclear family. According to Indian research, nuclear families are more likely than joint families to experience alcohol misuse and difficulties associated with alcoholism.^[16] There is a greater incidence of alcohol usage in nuclear and combined households, according to a few Indian research.^[14] This study found that 40% of participants were completely abstinent after 3 months. In a cohort study evaluating the outcomes at 3, 6, 12, and 24 months following intensive therapy for alcohol dependency, 53% of patients reported abstinence or a reduction in drinking after 3 months, 44.3% after 6 months, 30.6% after 12 months, and 25.7% after 24 months.^[17] In a cohort study of Japanese subjects receiving treatment, the abstinence rate in a follow-up period of 1 – 3 years was found to be 7 – 30 %.^[18] Research indicates that 6-18% abstinence at a two-year follow-up is the result. Studies based on self-report, however, have reported a 30% abstinence rate at a 2- to 3-year follow-up period.^[19] In nine years of follow-up, studies on outpatient long-term intensive therapy for alcoholics have discovered an abstinence rate as high as 50%.^[19] Maximum attrition was seen in the Indian follow-up studies between 3 and 6 months of the follow-up period. A study with in-patients revealed a 46% abstinence rate.^[1] This study's abstinence rate was shown to be comparable to earlier Western and Indian research. In this study, it was discovered that subjects with a SADD score corresponding to medium dependency had a higher abstinence rate than subjects with a score corresponding to high reliance. Previous research has demonstrated that bad outcomes are associated with higher alcohol use severity, more years of heavy alcohol use, more previous treatments, and earlier age of beginning of alcohol use. Baseline alcohol use and the degree of alcohol dependency are significant outcome predictors, according to studies.^[20] The results of the earlier investigations are supported by this study. When compared to people with modest degrees of dependency, those with high levels exhibit lower rates of abstinence. This study demonstrates that as compared to patients who did not receive Disulfiram as a deterrent treatment, those who did have greater rates of abstinence. Disulfiram has been demonstrated in studies to be beneficial in short-term abstinence. It reduces the number of drinking days and increases the number of days until relapse.^[21] There appears to be only modest evidence to suggest that disulfiram decreases the drinking frequency and increases the abstinence rate. However long-term evidence of abstinence is questionable.^[22] The present study has shown that participants who were regularly coming for follow-ups had higher rates of abstinence when compared to patients who were not regularly for follow-ups.

Conclusion

In this cohort of newly admitted alcohol-dependent patients from a tertiary care psychiatric unit of a general hospital, 40% of participants had maintained 100% abstinence after three months of conventional therapy. Regular follow-up hospital visits, good medication compliance, use of Disulfiram, receiving a medication-and-psychological-management regimen, and a less severe form of dependence, were the factors associated with abstinence. Regular follow-up hospital visits were identified in the multivariate analysis as the predictor linked with total abstinence for the three-month follow-up period.

References

1. Murthy P, Manjunatha N, Subodh B, Chand P, Benegal V. Substance use and addiction research in India. *Indian J Psychiatry*. 2010;52(7):189.
2. Das SK, Balakrishnan V, Vasudevan DM. Alcohol: its health and social impact in India. *Natl Med J India*. 2006 Apr;19(2):94–9.

3. Ghosh S, Samanta A, Mukherjee S. Patterns of Alcohol Consumption among Male Adults at a Slum in Kolkata, India. *J Health Popul Nutr.* 2012 Mar;30(1):73–81.
4. Kar N, Sengupta S, Sharma P, Rao G. Predictors of outcome following alcohol deaddiction treatment: a prospective longitudinal study for one year. *Indian J Psychiatry.* 2003;45(3):174–7.
5. Dixit S, Chauhan VS, Azad S. Social Support and Treatment Outcome in Alcohol Dependence Syndrome in Armed Forces. *J Clin Diagn Res JCDR.* 2015 Nov;9(11):VC01-VC05.
6. Abraham J, Chandrasekaran R, Chitralkha V. A Prospective Study of Treatment Outcome In Alcohol Dependence From A Deaddiction Centre In India. *Indian J Psychiatry.* 1997;39(1):18–23.
7. Suresh Kumar P, Thomas B. Family intervention therapy in alcohol dependence syndrome: One-year follow-up study. *Indian J Psychiatry.* 2007;49(3):200.
8. All India Institute of Medical Sciences, New Delhi (AIIMS). India National Household Survey of Drug and Alcohol Abuse 2000-2001. <https://ghdx.healthdata.org/record/india-national-household-survey-drug-and-alcohol-abuse-2000-2001> [Accessed on 06/06/2021]
9. Brady TM, Ashley OS. Women in Substance Abuse Treatment: Results From the Alcohol and Drug Services Study (ADSS) Substance Abuse and Mental Health Services Administration, Office of applied studies; Rockville, MD: 2005.
10. Crum RM, Helzer JE, Anthony JC. Level of education and alcohol abuse and dependence in adulthood: a further inquiry. *Am J Public Health.* 1993 Jun;83(6):830–7.
11. Van Oers JA, Bongers IM, van de Goor LA, Garretsen HF. Alcohol consumption, alcohol-related problems, problem drinking, and socioeconomic status. *Alcohol Oxf Oxf.* 1999 Feb;34(1):78–88.
12. Bello S, Fatiregun A, Ndifon WO, Oyo-Ita A, Ikpeme B. Social determinants of alcohol use among drivers in Calabar. *Niger Med J J Niger Med Assoc.* 2011;52(4):244–9.
13. Wu B, Mao Z-F, Rockett IRH, Yue Y. Socioeconomic status and alcohol use among urban and rural residents in China. *Subst Use Misuse.* 2008;43(7):952–66.
14. Sundaram KR, Mohan D, Advani GB, Sharma HK, Bajaj JS. Alcohol abuse in a rural community in India. Part I: Epidemiological study. *Drug Alcohol Depend.* 1984 Sep;14(1):27–36.
15. Heinz AJ, Wu J, Witkiewitz K, Epstein DH, Preston KL. Marriage and Relationship Closeness as Predictors of Cocaine and Heroin Use. *Addict Behav.* 2009 Mar;34(3):258–63.
16. Prabhu P, Srinivas R, Vishwanathan K, Raavi A. Factors influencing alcohol and tobacco addiction among patients attending a de-addiction Centre, South India. *J Int Soc Prev Community Dent.* 2014;4(2):103–07.
17. Rus-Makovec M, Čebašek-Travnik Z. Long-term Abstinence and Well-being of Alcohol dependent Patients after Intensive Treatment and Aftercare Telephone Contacts. *Croat Med J.* 2008 Dec;49(6):763–71.
18. Higuchi S, Saito T. [Reduction in alcohol consumption: therapeutic goal in alcohol dependence treatment]. *Nihon Arukōru Yakubutsu Igakkai Zasshi Jpn J Alcohol Stud Drug Depend.* 2013 Feb;48(1):17–31.
19. Haug S, Schaub MP. Treatment outcome, treatment retention, and their predictors among clients of five outpatient alcohol treatment centers in Switzerland. *BMC Public Health.* 2016; 16:581.
20. Adamson SJ, Sellman JD, Frampton CMA. Patient predictors of alcohol treatment outcome: a systematic review. *J Subst Abuse Treat.* 2009 Jan;36(1):75–86.

21. Jørgensen CH, Pedersen B, Tønnesen H. The efficacy of disulfiram for the treatment of alcohol use disorder. *Alcohol Clin Exp Res*. 2011 Oct;35(10):1749–58.
22. Grover S, Basu D, Bhateja G. Pharmacoprophylaxis of alcohol dependence: Review and update Part II: Efficacy. *Indian J Psychiatry*. 2007;49(1):26–33.