## **ORIGINAL ARTICLE**

# TIME TREND FOR SUBSTANCE USE DISORDER AND PSYCHIATRIC DISORDERS AMONG PATIENTS SEEKING TREATMENT FROM A DUAL DIAGNOSIS CLINIC OF A TERTIARY CARE SUBSTANCE USE DISORDER TREATMENT CENTRE IN INDIA

Yatan Pal Singh Balhara, Rishi Gupta, Rakesh Lal

Department of Psychiatry and National Drug Dependence Treatment Centre (NDDTC), World Health Organization (WHO) Collaborating Centre on Substance Abuse, All India Institute of Medical Sciences (AIIMS), New Delhi, India.

#### **Abstract**

Objective: The study is aimed at assessment of time trend for substance use disorder and psychiatric disorders among patients seeking treatment from a dual diagnosis clinic of a tertiary care substance use disorder treatment centre in India. Methods: The study is based on chart review of the patients seeking treatment from the Dual Diagnosis Clinic of a tertiary care substance use disorder treatment centre. The records of the patients seeking treatment over a six-year period (2009-2014) were reviewed. Information was collected on sociodemographic variables, substance use disorder and co-occurring psychiatric disorder. Results: A total of 289 patients sought treatment from the dual diagnosis clinic of the centre. Majority were male (97.2%). Primary drugs of abuse were nicotine (74.4%), alcohol (49.5%), cannabis (38.4%), and opioids (28.7%). Most common co-occurring psychiatric disorders were psychiatric disorders, including schizophrenia (45.0%), Major depressive disorder (24.9%), Bipolar disorder (18.3%), anxiety disorder (4.5%) and OCD (2.4%). Most patients with psychotic disorders and depressive disorders had co-occurring alcohol dependence. Most patients with bipolar disorder had co-occurring cannabis dependence. There was a marginally significant increase in proportion of subjects with cannabis dependence ( $P_{Trend}$ = .07). There was no significant time trend for various co-occurring psychiatric disorders. Conclusions: The findings of the current study suggest that there has been a marginally significant increase in proportion of subjects with cannabis dependence over the six study years. However, the proportion of co-occurring psychiatric disorders was stable across these years. The findings of the current study suggest that the centre should be prepared to cater to an increasing proportion of patients with cannabis dependence and possibly co-occurring psychotic disorders in the coming years. ASEAN Journal of Psychiatry, Vol. 17 (2): July – December 2016: XX XX.

**Keywords: Comorbidity, Dual Diagnosis, Dual Disorders, Substance Use Disorders, Mental Disorders** 

## Introduction

Dual disorders represent an interface with important clinical and research implications. A

high prevalence of dual disorders has been well established in epidemiological as well as clinic-based studies [1-4]. A significant burden is associated with both psychiatric disorders,

and substance use disorders. Since these two groups of disorders tend to co-occur at a greater frequency that can be explained by chance, a significant proportion of this burden is expected to be attributable to dual disorders.

There has been limited research on dual disorders in non-western settings. certain facets of dual disorders remain unexplored in western settings as well. There is published literature that has commended on the long-term course of dual disorders at treatment centres over successive years [5]. Similarly, literature is also available on change in treatment approach for dual disorders at specific treatment centres over the successive years [6]. However, there is no published literature on time trends of change in type of dual disorders observed at treatment centres. Such information is of value in understanding the changing needs of the treatment seekers. This information is likely to be of help in developing appropriate management strategies for these individuals and made necessary amendments to the existing set up.

The current study is aimed at assessment of time trend for substance use disorder and psychiatric disorders among patients seeking treatment from a dual diagnosis clinic of a tertiary care substance use disorder treatment centre in India over a period to of six years.

### Methods

This study was conducted at a tertiary care drug dependence treatment centre in Northern part of India. The centre offers services to individuals seeking treatment for substance use disorders. The centre runs a weekly dual diagnosis clinical that caters to the needs of those with dual disorders. The clinic offers diagnostic and management services with provision for medications and non-pharmacological interventions.

The study employed a chart review of the treatment records of the patients seeking treatment from the dual diagnosis clinic of the centre over a period of six years (2009- 2014). The records of the patients were reviewed, and information was gathered based on a predecided proforma. Information was collected on socio-demographic variables, substance use disorder and co-occurring psychiatric disorder. All available treatment records over the six years periods were included in the current study.

Data were analysed using SPSS version 21 (IBM Inc., New York) [7]. Description analysis was carried out for various sociodemographic variables. The chi-square test for trend was applied to test for the trend over the period of six years. A *p* value of less than 0.05 was considered significant statistically.

#### Results

A total of 289 patients sought treatment from the dual diagnosis clinic of the centre. Majority were male (97.2%). The mean age of study participants was 34.02 (10.50) years. There was no change in mean age of the subjects across the 6 years (F- 0.18, df= 5, p= 0.97). Majority of the study subjects were employed (52.6%) and married (58.8%).

Primary drug of abuse were tobacco (74.4%), alcohol (49.5%), cannabis (38.4%), and opioids (28.7%). Most common co-occurring psychiatric disorders were psychotic disorders. including schizophrenia (45.0%), depressive disorder (24.9%), bipolar affective disorder (18.3%), anxiety disorder (4.5%) and OCD (2.4%). The distribution of the different psychiatric diagnoses across the substance use disorders has been presented in Table 1. Most patients with psychotic disorders depressive disorders had co-occurring alcohol dependence. Most patients with bipolar disorder had co-occurring cannabis dependence.

Table 1. Distribution of psychiatric disorders across different substance use disorders

	ADS (n=143)	ODS (n=83)	CDS (n=111)
Psychotic Disorders	73	35	41
BPAD	19	22	26
Depressive disorders	35	14	32
Anxiety disorders	5	4	6
OCD	6	1	3
Others	5	7	3

ADS- Alcohol Dependence Syndrome, ODS- Opioid Dependence Syndrome, CDS- Cannabis Dependence Syndrome, BPAD- Bipolar Affective Disorder, OCD- Obsessive Compulsive Disorder

A steady increase in proportion of patients with opioid dependence syndrome was observed since the year 2011. Similarly, there a recent increase in proportion of patients with

cannabis dependence was also observed (Figure 1 (a)). This was a marginally significant linear trend ( $P_{Trend}$ = .07).

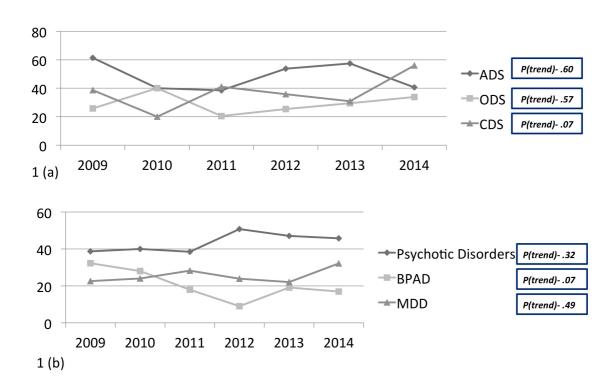


Fig. 1 Time trends in proportion of (a) substance use disorders and (b) psychiatric disorders among those seeking treatment at the dual diagnosis clinic

There was a recent increase in proportion of patients with depressive disorders and a decrease in proportion of patients with psychotic disorders and BPAD (Figure 1 (b)). However, no significant linear time trend was observed with regards to the type of psychiatric disorders.

## Discussion

The findings of the current study suggest a recent trend towards the increase in proportion of individuals with cannabis use disorders in the dual diagnosis clinic of the treatment centre. Majority of the study sample was malean observation in keeping with the usual

patient profile at the centre and across previously published literature from India [8-13]. The finding of tobacco being the most common substance of use is in keeping with high prevalence of tobacco use among treatment seekers in the country [13, 14]. Alcohol, cannabis and opioids are commonly encountered psychoactive substances in the treatment centre throughout in the country [15].

Psychotic disorders and mood disorders (bipolar affective disorder and depressive disorders) were almost equally common psychiatric morbidity in the current study. A previous Indian study reported a higher prevalence of mood disorders among those with a dual disorder [16]. It is likely that individuals with more severe forms of psychiatric disorders tend to reach the treatment centre as it is the apex institute for management of substance use disorders throughout the country. A recent review of India's research on co-occurring disorders also observed a greater focus on alcohol, and cannabis use disorders [2, 3]. Additionally, psychotic disorders and mood disorders have been most commonly studied in India's setting.

The finding of a trend of a recent increase in patients with cannabis use disorders is also in keeping with the observation of an in proportion of those with cannabis use among treatment seekers at the de-addiction centres across the country. These findings highlight the need to focus on developing interventions cannabis sue disorders as presentations are likely to increase at the dual diagnosis clinic in the coming years. Also, since cannabis use is associated with psychotic disorders it is likely that increase in proportion of those with cannabis use is likely to be accompanied by an increase in proportion of those with psychotic disorders.

There has been limited literature on dual disorders from India. While there has been research in the time course of dual disorders at specific treatment centres as well as changing trends in management approach to dual disorders [6, 7], there is no published literature on time trends in nature of dual disorders among treatment seekers. General population-

based surveys on substance use disorder also fail to report on change in trends in cooccurring psychiatric disorders in this population. Such information can be of importance in planning appropriate clinical services for those with dual disorders.

The current study has certain limitations. It reports findings from a single centre. This restricts the generalizability of the findings. However, it shows the way by highlighting the need to having such information on time trends in dual disorders. It shall be interesting to carry out such assessment across multiple treatments centres so that region-specific modifications to the existing strategies could be made.

#### **Conclusions**

The findings of the current study suggest that there has been a marginally significant increase in proportion of subjects with cannabis dependence over the six study years. However, the proportion of co-occurring psychiatric disorders was stable across these years. The findings of the current study suggest that the centre should be prepared to cater to an increasing proportion of patients with cannabis dependence and possibly co-occurring psychotic disorders in the coming years.

# Acknowledgement

#### Disclosures

The authors have no disclosures to make.

# References

- 1. Ponizovsky AM, Rosca P, Haklai Z, Goldberger N. Trends in dual diagnosis of severe mental illness and substance use disorders, 1996-2010, Israel. Drug Alcohol Depend. 2015 Mar 1;148:203-8.
- 2. Singh S, Balhara Y. A systematic review of Indian research on comorbid alcohol use disorders and psychiatric disorders. Indian Journal Psychol Med. 2016; 38: 10-29.

- 3. Swendsen J, Conway KP, Degenhardt L, Glantz M, Jin R, Merikangas KR, et al. Mental disorders as risk factors for substance use, abuse and dependence: results from the 10-year follow-up of the National Comorbidity Survey. Addiction. 2010 Jun;105(6):1117-28.
- Teesson M, Slade T, Mills K. Comorbidity in Australia: findings of the 2007 National Survey of Mental Health and Wellbeing. Aust N Z J Psychiatry. 2009 Jul;43(7):606-14.
- 5. Xie H, Drake RE, McHugo GJ, Xie L, Mohandas A. The 10-year course of remission, abstinence, and recovery in dual diagnosis. J Subst Abuse Treat. 2010 Sep;39(2):132-40.
- Spreat S, Behar D. Trends in the residential (inpatient) treatment of individuals with a dual diagnosis. Journal of Consulting and Clinical Psychology. 1994;62(1):43-8.
- 7 IBM Corp. Released 2012. IBM SPSS Statistics for Windows, Version 21.0. Armonk, NY: IBM Corp.
- 8. Balhara YP. A chart review based comparative study of retention rates for two dispensing regimens for buprenorphine for subjects with opioid dependence at a tertiary care substance use disorder treatment center. J Opioid Manag. 2014 May-Jun;10(3):200-6.
- 9. Balhara YP, Jain R. Urinalysis-based comparative evaluation of pattern of use of dextropropoxyphene and buprenorphine among opioid-dependent subjects. J Opioid Manag. 2012 Jan-Feb;8(1):45-9.
- 10. Balhara YP, Jain R. A urinalysis-based study of buprenorphine and non-

- prescription opioid use among patients on buprenorphine maintenance. J Pharmacol Pharmacother. 2012 Jan;3(1):15-9.
- 11. Balhara YP, Jain R. Cannabis use among opioid-dependent individuals on opioid substitution therapy. J Pharmacol Pharmacother. 2014 Jul;5(3):203-5.
- 12. Balhara YP, Jain R, Sundar AS, Sagar R. Use of cotinine urinalysis to verify self-reported tobacco use among male psychiatric out-patients. Lung India. 2012 Jul;29(3):217-20.
- 13. Balhara YP, Mishra A, Sethi H, Ray R. A retrospective chart review of treatment seeking middle aged individuals at a tertiary care substance use disorder treatment centre in North Part of India over five successive years: findings from drug abuse monitoring system. ScientificWorldJournal. 2013;2013:316372.
- 14. Jain R, Balhara YP, Jhanjee S, Sethi H. Concordance between urinary cotinine levels and self-reported tobacco use among drug-dependent persons: a pilot study. Subst Abus. 2012;33(2):99-102.
- 15. Ray R. National Survey on extent, Pattern and Trends of Drug Abuse in India. Ministry of Social Justice and Empowerment and United Nations Office on Drug and Crime Regional Office for South Asia 2004:1-88.
- 16. Basu D, Sarkar S, Mattoo S. Psychiatric comorbidity in patients with substance use disorders attending an addiction treatment center in India over 11 years: Case for a specialized dual diagnosis clinic? . Journal of Dual Diagnosis. 2013;9:23-9.

Corresponding author: Yatan Pal Singh Balhara, Department of Psychiatry and National Drug Dependence Treatment Centre (NDDTC), WHO Collaborating Centre on Substance Abuse, All India Institute of Medical Sciences (AIIMS), New Delhi, India and International Programme in Addiction Studies, Master of Science in Addiction Studies, King's College London, UK.

Email: ypsbalhara@gmail.com

Received: 3 February 2016 Accepted: 20 June 2016