

PREVALENCE AND QUALITY OF LIFE IN ADULT ADHD WITH SUBSTANCE USE DISORDERS

Mali Bharat Kumar¹, Nilesh Naphade^{2*}, Asmita Jagtap³, Jyoti V Shetty⁴

1. Consultant Psychiatrist, Keshao Clinic, Mumbai, 400002
2. Professor, Department of Psychiatry, Bharati Vidyapeeth Hospital and Research centre, Pune, 411043
3. Associate Professor, Department of Psychiatry, Bharati Vidyapeeth Hospital and Research centre, Pune, 411043
4. Professor and Head, Department of Psychiatry, Bharati Vidyapeeth Hospital and Research centre, Pune, 411043

*Corresponding Author:

Nilesh Naphade, Department of Psychiatry, Bharati Vidyapeeth Hospital and Research centre, Pune, 411043

E-mail address: dr.nileshnaphade@gmail.com

ABSTRACT

Background: Attention deficit hyperactive disorder is one of the common childhood disorders characterised by inattentiveness and hyperactivity. ADHD can persist through adulthood if untreated. Literature depicts a strong correlation between substance use and inattentiveness. Present study aims at estimating the prevalence of the co-occurrence of both the conditions, their evaluation and treatment.

Aim: To estimate the Prevalence of Adult Attention Deficit Hyperactivity Disorder amongst patients with substance use disorders.

Settings and Design: This was an observational study conducted among patients attending the Psychiatric OPD/IPD at a tertiary care hospital in Pune. 200 patients above the age of 18 years, with a diagnosis of substance use disorders as per ICD-10 were included. Patients having pre-existing psychiatric illnesses and other co-existing medical or surgical illnesses were excluded. Ethical clearance from institutional ethics committee was obtained before commencing the study and consent was taken.

Methods and Material: Adult ADHD Quality of Life Questionnaire (AAQoL); The Drug Abuse Screening Test (DAST-10); The Alcohol Use Disorders Identification Test (AUDIT) were used. Chi-Square test, t-test /ANOVA - were used.

Results: The prevalence of ADHD among patients with SUD was 35.5%. The patients screened positive for ADHD had worse life productivity, psychological health, relationships, life outlook and overall Quality of Life than who screened negative with statistical significant difference.

Conclusions: The prevalence of Adult ADHD with SUDs were more in younger age group with male predominance. The quality of life among Adult ADHD patients who screened positive was worse compared to other patients.

Key-words: ADHD, Substance use disorder, Prevalence, Quality of life.

INTRODUCTION

Attention Deficit Hyperactivity Disorder (ADHD) is one of the most common mental health disorders affecting children and adolescents characterized by hyperactivity, impulsivity and inattention.^{1,2} Adult ADHD suffer more because of their chaotic lifestyles, poor time management, motivational difficulties, mood liability, stress sensitivity, poor concentration and impulsive behavior.³ prevalence of ADHD in children of 5% to 10% and persistence rate of 40% to 60% into adulthood suggest ADHD may affect as many as 2-4% of populations.⁴

One found a positive association of inattentive symptoms with alcohol use and cannabis misuse. Early onset SUD is associated with elevated rates of academic failure, suicidal behaviors, and other dangerous behaviors. The misuse of marijuana, alcohol, or the combination of the two is the most common substances of abuse in adolescents with ADHD. Follow-up studies of children with ADHD into adulthood suggest that there is an increased risk of substance used disorders. Early diagnosis and treatment of ADHD is the preventive measure for habit-forming illnesses.^{5,6} Present study was conducted to estimate prevalence of adult ADHD amongst patients with substance use disorders.

Aim:

To estimate the Prevalence of Adult Attention Deficit Hyperactivity Disorder (ADHD) amongst patients with substance use disorders

Objectives:

1. To report Adult Attention Deficit Hyperactivity Disorder (ADHD) Prevalence in Substance Use Disorders.
2. To assess Quality of Life in Adult Attention Deficit Hyperactivity Disorder (ADHD) with substance use disorders.

This was an observational study conducted among patients attending the Psychiatric OPD/IPD at a private tertiary care hospital in Pune, India. A total of 200 patients all above the age of 18 years, with psychiatric diagnosis of substance use disorders as per International Classification of Diseases and Health Related Problems- 10 (ICD-10) were included. Patients having pre-existing psychiatric illnesses and other co-existing medical or surgical illnesses were excluded. A written informed consent was taken from all participants. Ethical clearance from institutional ethics committee was obtained before commencing the study.

After Obtaining Socio demographic details of the participants like age, gender, education, occupation, relation with patient, family type, marital status, etc., for accessing the symptoms Adult ADHD Self-Report Scale (ASRS-V1.1) which is a Symptom Checklist is an instrument consisting of the eighteen DSM-IV-TR criteria, Six of the eighteen questions were found to be the most predictive of symptoms consistent with ADHD. Adult ADHD Quality of Life Questionnaire (AAQoL): The self-reported AAQoL is a validated 29-item scale consisting of a total score and 4 subscales (life productivity, psychological health, life outlook, and relationships) designed to assess health-related QOL in adults with ADHD. Each item is rated by patients on a 5-point Likert scale ranging from "Not at all/ Never" (1) to "Extremely/Very Often"(5). The Drug Abuse Screening Test (DAST-10) is a 10-item brief screening tool that can be administered by a clinician or self-administered. Each question requires a yes or no response, this tool assesses drug use, not including alcohol or tobacco use, in the past 12 months. The Alcohol Use Disorders Identification Test (AUDIT) is a 10-item screening tool developed to assess alcohol consumption, drinking behaviors, and alcohol-related problems.

A score of 8 or more is considered to indicate hazardous or harmful alcohol use. Chi-Square test, t-test /ANOVA - test were used to obtain the results.

RESULTS

Out of a total of 200 participants, 179(89.5%) were males and 21(10.5%) were females. The majority of patients were in age group 21-30 years (46%) followed by 31-40 years (23.5%). The mean age of the patients was 25.83 ±14.39 years.

It was observed that majority of patients were with primary education (35.5%) followed by secondary education (31.5%) while illiterate was (9.5%). It was observed that majority of patients were semi-skilled (25.5%) followed by farmer (21.5%) while unemployed were 14.5%. majority of patients were married (74.5%) followed by unmarried (20.5%).

According to type of substance abuse, majority of patients were alcohol abuse (56.5%) followed by nicotine (39.5%), cannabis (21.5%) and other drugs were (14%). ADHD among patients was 35.5% (71) by ASRS VI.1. quality of life in adult ADHD patients showed mean lie productivity was 61.92 ±5.67, psychological health was 53.91 ±4.42, relationship was 60.63 ±5.21, life outlook was 59.91 ±8.71 and overall Quality of Life was 60.23 ±7.28. patients screened positive for ADHD had worse life productivity, psychological health, relationships, life outlook and overall Quality of Life than who screened negative with statistically significant difference. (P<0.001).

Adult ADHD patients with DAST -10 score ≥3 was (28.50%) and with AUDIT score ≥20 was (35.50%). Patients screened positive for ADHD had worse AUDIT and DAST-10 score than who screened negative with statistically significant difference. (P<0.001)

Distribution of patients according to sex:

Sex	No. of Patients	Percentage
Male	179	89.5
Female	21	10.5
Total	200	100

Distribution of patients according to type of substance abuse:*

Substance abuse	No. of Patients (n=200)	Percentage
Alcohol	113	56.5
Nicotine	79	39.5
Cannabis	43	21.5
Other drugs	28	14.0

(*Multiple Response Present)

Distribution of patients according to ASRS V1.1 of ADHD:

ADHD	No. of Patients	Percentage
Present	71	35.5
Absent	129	64.5
Total	200	100

Distribution according to quality of life in adult ADHD:

AAQoL	Mean (n=71)	SD
Life Productivity	61.92	5.67
Psychological Health	53.91	4.42
Relationships	60.63	5.21
Life outlook	59.91	8.71
Overall QoL	60.23	7.28

Association of quality of life in patients with and without ADHD:

AAQoL	ADHD		P value
	Screened Positive (Mean ±SD)	Screened Negative (Mean ±SD)	
<i>Life Productivity</i>	81.23 ±7.28	51.1 ±11.19	<0.001*
<i>Psychological Health</i>	75.28 ±6.91	53.2 ±12.89	<0.001*
<i>Relationships</i>	77.63 ±7.57	61.8 ±13.18	<0.001*
<i>Life outlook</i>	72.13 ±9.23	54.47 ±14.28	<0.001*
<i>Overall QoL</i>	81.23 ±7.28	72.68 ±7.11	<0.001*

Association of demographic factors in patients with and without ADHD:

Demographic factors	ADHD		P value
	Screened Positive	Screened Negative	
Mean age	26.23	27.21	>0.05

Sex	Male	59	120	<0.05
	Female	12	09	
Education	illiterate/ Primary	43	47	>0.05
	Secondary & above	28	82	
Occupation	Unemployed	12	17	>0.05
	Employed	59	112	
Marital status	Married	48	101	>0.05
	Single/separated	23	28	

Association of parameters in patients with and without ADHD:

Parameters	ADHD		P value
	Screened Positive (Mean ±SD)	Screened Negative (Mean ±SD)	
AUDIT score	27.13 ±6.88	13.11 ± 9.21	<0.001*
DAST-10 score	7.63 ± 2.18	5.61 ± 2.83	<0.001*

DISCUSSION

In the present study mean age of the patients was 25.83 ±14.39 years. In a study done by Suhas Ganesh et al.⁷ to explore the prevalence of ADHD and its subtypes in treatment seeking patients with SUD observed mean age of 39 years among patients which was slightly more than present study. The distribution of patients according to type of substance abuse showed that majority of patients was alcohol abuse (56.5%) followed by nicotine (39.5%), cannabis (21.5%) and other drugs were 14%. Similar findings seen in a study done by Suhas Ganesh et al.⁷ to explore the prevalence of ADHD and its subtypes in treatment seeking patients with SUD observed substance use of alcohol in 57.5% patients, 15% had cannabis, 9.6% had opioid, and 15% had polysubstance dependence syndrome. In the present study, ADHD among patients with substance use disorder was 35.5%. Similarly, Dalia Mokhtar Khalil et al.⁸ studied prevalence of Adult ADHD in Substance Use Disorder patients also observed prevalence of Adult ADHD among the substance use disorder patients was found to be 27.8%. 35.5%. In a study done by Sitholey P et al.⁹ in a general psychiatric outpatient setting assessing 283, adult patients 25 (8.83%) were noted to have ADHD. A study recruiting 237 college students in Chandigarh by Jhambh I et al.¹⁰ reported an even lower rate of with 13 (5.48%) qualifying for the diagnosis of adult ADHD.

In the study, it was observed that patients screened positive for ADHD were younger than who screened negative with no statistically significant difference. ($P>0.05$) ADHD was found more in male patients compared to females with statistically significant difference. ($P<0.05$) Education, occupation and marital status showed no statistically significant difference among patients with and without ADHD. ($P>0.05$)

In a study by Dalia Mokhtar Khalil et al.⁸ groups with and without ADHD did not differ significantly in terms of socio-demographic profile. The SUD with Adult ADHD had significantly mean early age of onset 20 years Vs 32 years in the other group.

In the present study, it was observed that patients screened positive for ADHD had worse life productivity, psychological health, relationships, life outlook and overall Quality of Life than who screened negative with statistically significant difference. ($P<0.001$) In a study by Chao et al.¹¹ who examined the relationship between ADHD, depression/anxiety, and quality of life showed patients had more severe depression, anxiety, and daytime sleepiness and had poorer QOL than controls (all $p<0.05$) and ADHD should be included in the differential diagnosis for decreased Quality of Life.

It was observed that patients screened positive for ADHD had worse AUDIT score and DAST-10 score than who screened negative with statistically significant difference. ($P<0.001$)

Overall, the co-occurrence of ADHD and SUD can result in a more severe course of both substance use and psychiatric symptoms and outcomes. It is therefore important to screen for ADHD in patients presenting with SUD and vice-versa.^{12,13}

Limitations: The study sample consists of patients visiting a tertiary care hospital; hence their characteristics might not be entirely shared with the general population. The cross-sectional design of the study does not allow for the longitudinal assessment of co morbid substance use in patients with ADHD. The temporal relationship between the predictor and outcome variables could not be established.

FUTURE SCOPE

The prevalence of Adult Attention Deficit Hyperactivity Disorder with Substance Use Disorders was more in younger age group with male predominance. The quality of life among Adult Attention Deficit Hyperactivity Disorder patients who screened positive was worse compared to other patients, the co-occurrence of Adult Attention Deficit Hyperactivity Disorder and Substance Use Disorders can result in a more severe course of both substance use and psychiatric symptoms and outcomes. It is therefore important to screen for ADHD in patients presenting with SUD and vice-versa.

Adult ADHD is a highly co-morbid condition among patients with SUDs. Regular screening with scales such as ASRS symptom checklist enables detection of this condition. If this co-morbid condition is identified, then it should be treated appropriately.

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