

A cross-sectional study of adult attention deficit hyperactive disorder in patients with intentional self-harm

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ABSTRACT

Attention deficit hyperactive disorder is previously known to be diagnosed in only childhood, recently many research has been done on ADHD, proving that ADHD can persist even in Adults. ADHD in adults is said to be one of the causes of suicide. The main aim of this Study is to identify the patients with intentional self-harm with their sociodemographic and clinical characteristics of the above patients and finally to determine the prevalence of Adult ADHD among high patients. It is a cross-sectional study of Patients who are above the age of 18 years, with intentional self-harm, who are willing to give consent for the Study, without any comorbid medical conditions and who came in contact with the outpatient department of psychiatry from other departments in a tertiary hospital between the timeline of 1 year (i.e. between 1st May 2015-30th April 2016). The subjects were recruited for Study, their sociodemographic details were collected, and SCID-I and SCID-II were applied along with Adult ADHD self-reporting scale. They were diagnosed according to DSM-5 by two qualified Psychiatrist. Among the 112 patients who attended psychiatric OPD, 45 of them were recruited for the Study with History of intentional self-harm, Mean age group of the Study was 28.27, and the study subjects were divided into two groups Intentional self Harm with ADHD and Intentional self-harm without ADHD, two groups were compared with each other, majority of them were between the Age group 21-30 yrs in both the groups ($P=2.113$), the preponderance of Female was seen in intentional self-harm without ADHD groups ($p=4.544$), subjects in this Study came from a semi-urban background, from both the groups ($P=1.784$), nuclear family ($P=0.675$) and middle socio-economic status (6.585). The primary method used by subjects in both group ($P=2.742$) was multiple tablets with medium suicidal intent ($p=1.044$). When comparing both groups, no statistical significance could be found between them.

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INTRODUCTION

In this section presents the introduction of this research work. Attention-deficit/hyperactivity disorder (ADHD) is defined as a persistent pattern of Inattention & hyperactivity/impulsivity that interferes with functioning or development has symptoms presenting in two or more settings and negatively impacts directly on social, academic or occupational functioning (DSM-5). Attention deficit

hyperactivity disorder [ADHD] is a neurobehavioral disorder characterized by either significant difficulties of Inattention or hyperactivity and impulsivity or a combination of the two according to WHO definition. ADHD was considered a childhood disorder, who when not diagnosed or treated, continue to have symptoms into Adulthood. In Adult life, the symptoms like hyperactivity/impulsivity manifest less frequently, the hyperactivity symptoms tend to turn into "inner restlessness" on Adulthood which is exhibited as symptoms including impulsivity, Inattention, executive dysregulation such as high distractible, poor time management, impulsive decision making, a sudden burst of energy leading to excessive speed while driving, memory disturbances especially working memory, difficulty standing in a single posture or place etc. given by Barkley RA et al. 2008 [1]. Individuals with childhood ADHD can persist in having symptoms even in Adulthood up to 15% to 76 %. Studies done by Fayyad J et al. 2007 [2], Kessler R et al. 2007 [3] and Simon et al. 2009 [4] showed the prevalence of Adult ADHD in population up to 2.5% to 4.4%. Much psychiatric disorder co-occurs along with Adult ADHD, including anxiety, mood disorders, suicide, impulse control disorders and substance use disorder. Adults with ADHD seek medication for comorbid illness then the ADHD. A study done by Michelson et al. 2012 [5] shows that ADHD not only present in young adults but persists symptomatically in elderly also (aged 60-94).

Suicide is the Latin word "self-murder". It is an act that represents the person's wish to die. According to ICD-10 Self-harm (SH) [6, 7] is defined as the intentional, i.e., purposefully direct injuring of body tissue, done without suicidal intentions. (Intentional self-harm X71-X83). The term self-harm or parasuicide means the same as self-injury. Some persons act on their suicidal ideas after planning for a particular duration; others attempt impulsively without any precaution. Emphasizing the above, the need for differentiation between two which was addressed as Deliberate self-injury and later changed to Deliberate self-harm (Intentional self-harm) by Morgan et al. 1979 [8]. According to the latest WHO reports, approximately one million people die from suicide every year all over the world and 10-20 times more attempt suicide.

According to data released by National Crime Records of INDIA by 2015, mortality due to suicide is about 1.31 lakh persons approximately. Tamilnadu being the highest of about 12.5% among southern and eastern states of India which has higher rates than Northern states. The first article on suicide was published in 1965, and nearly 54 articles

had been published in the Indian journal of psychiatry since 1958-2009 given by L.vijaya Kumar 2010 [9]. Intentional self-harm is one of the top 5 causes of acute medical admissions by Hawton et al. 2003 [10]. Significant variations are seen in sociodemographic details, age, gender, marital status, suicidal ideations and intent among the patients with Intentional self-harm. Many contributing factors like biological, genetic, psychological, social and psychiatric conditions were associated with suicide by Hawton and Van Heeringen et al. 2009 [11].

Societies view suicide in many different ways according to their belief, culture and religion. Suicide has been described in many ancient Indian kinds of literature and epics like Mahabharata and Ramayana. Many western religious cultures like Islam, Christianity and Buddhism view self-killing as wrongful act or sin. In India, it is considered an offence. It is punishable under Indian penal code 309 and an insult to religious beliefs, and it condemns such act given by Partha Partim Das et al. 2008 [12]. Suicide under some normal circumstances like hunger strikes, killing oneself to preserve family honour are considered as an honour. According to Rajiv Radhakrishnan et al. 2012 [13-17], only 25 % of the suicide are investigated in rural areas in India, family members of suicide attempters avoid process due to stigma involved and to avoid police investigations.

In this paper presents section 2 of this paper explains the detail on the related works. In part 3 presents the materials and methods adopted and section 4 shows the details of the experiments and discussions. Finally, section 5 concludes the paper by sharing our inferences and plans.

RELATED WORKS

In this section presents focuses on the related works of this research work. Adult ADHD is one of the disorder which is challenging to diagnose and which had recently gained the attention of the practitioners and researchers. Diagnostic and statistical manual -5 by American psychiatric association had recently updated their criteria for ADHD by 2014, in which they had included the requirements for Adult ADHD who presents with minimum five to six symptoms persisting since before the age of 12 years for the adults or adolescents to diagnose them to have Adult ADHD(DSM-5). Very few studies had been done in India on this topic. Mostly the patients and his relatives present with the symptoms of withdrawal from substance use, deliberate self-harm/impulse control disorder or personality disorder, major depressive disorder and

schizophrenia which makes Psychiatrist overlook the Adult ADHD and it makes Psychiatrist to diagnosis and management difficult. To make the diagnose Adult ADHD psychiatrist has to depend on self-reporting scales like the CADDRA Adult ADHD self-reporting scale.

In psychiatry, ADHD had gained its importance recently for over a decade. ADHD is primarily diagnosed in childhood and was considered misnomer that they would outgrow eventually during Adulthood as per Doyle R et al. 2004 [18] The main important features of ADHD in children and adults are their increased motor activity, decrease in attention span and inner restlessness leading to impulsive behaviour.

These symptoms had been described in many articles over last 200 years, the nomenclature of the signs given by DSM had changed only recently by Lange KW et al. 2010 [19] Studies done by Wender PH et al. 1998 [20] suggested that 40 % to 70% of the children who were diagnosed with ADHD continue to have symptoms even in Adulthood with social, global functioning impairment and socioeconomic disadvantage. Decrease attention to details, difficulties in maintaining priorities, self-organization, complexity in starting a new task or sustaining the task, low tolerance of frustration, Chaotic lifestyle, psychiatric comorbidities are present in ADHD associated with Adults. Meta-Analysis is done by Simon and Czobor at al 2009 [21] with MEDLINE, PsycLIT, and EMBASE showed the prevalence to be 2.5% among the general population, 16.8 % and 22% respectively in outpatients.

MATERIALS AND METHODS

In this section presents the materials and methods of this research work. This is a cross-sectional study on patients with intentional self harm who came in contact with the psychiatric department and to study the prevalence of Adult ADHD among them.

Subjects

The Study was conducted in the Outpatient Unit of the psychiatric department. All the patients with Intentional self-harm who came in contact with the psychiatric department from 1st May 2015-30th April 2016 (either outpatient, inpatient or referral from other departments) were recruited for the Study. The above patients were interviewed, along with their informants or relatives.

Need for the Study

The purpose of the Study was to estimate the prevalence of adult ADHD among patients with intentional self harm.

Inclusion criteria

Patients who had attempted intentional self harm during the study period

Patients who had willing taken psychiatric opinion

Patients above the age of 18 yrs

Patients who are willing to give informed consent

Exclusion criteria

Refusal to provide consent

Patients relatives are not willing to give informed consent

3. Patients who are not able to cooperate and a patient who has a severe medical or psychiatric condition.

Procedure

1. Among the 112 number of patients who came in contact with the psychiatric department with intentional self harm within the period between 1st May 2015 to 30th April 2016 were interviewed.

2. 22 were less than 18 yrs, 16 had a physical illness, 13 not willing to give consent, nine withdrew from Study, 7 of the patients relative were not ready to give consent.

After inclusion and exclusion criteria, 45 patients were taken up for the Study

4. Interviews were conducted once the patient is stable and in condition to answer the question, who was sent to psychiatry OPD for opinion.

5. The diagnosis was made for intentional self-harm, according to the ICD-10 criteria by at least two qualified psychiatrists.

Patients and their family members who were recruited were interviewed using Semi-structured proforma

Sociodemographic details were collected and documented

8. Structured clinical interview for diagnostic and statistical manual of mental disorders-IV(SCID-I) was applied, and their comorbid psychiatric illness was noted.

Beck's suicide intent scale was used to estimate the intent of suicide

10. Structured Clinical Interview for Diagnostic and statistical manual of mental disorders -IV (SCID - II) will be used to determine the presence of any personality disorder if present, they were diagnosed with ICD-10 criteria.

11. Patients were screened for Adult ADHD using Adult Attention deficit hyperactive disorder self-reporting scale (ASRS-v1.1)

If the patients satisfied the range, Adult ADHD was diagnosed accordingly using DSM-5 criteria

RESULTS AND DISCUSSIONS

In this section focuses the results and discussions of this research work. In this study group comprising 112 number of patients satisfying the inclusion and exclusion criteria recruited over one year from May 2015 to April 2015, the age distribution is as follows.

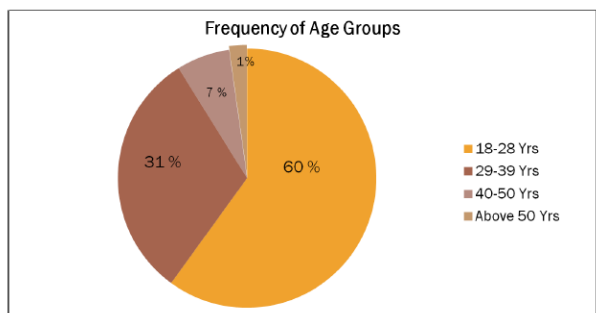


Figure 1: Pie chart of age groups distribution within study group (N=45)

Nearly 60% in the age group of 18-28 Years; 31% are between the age of 29-39 years and 7 % between 40-50 years.

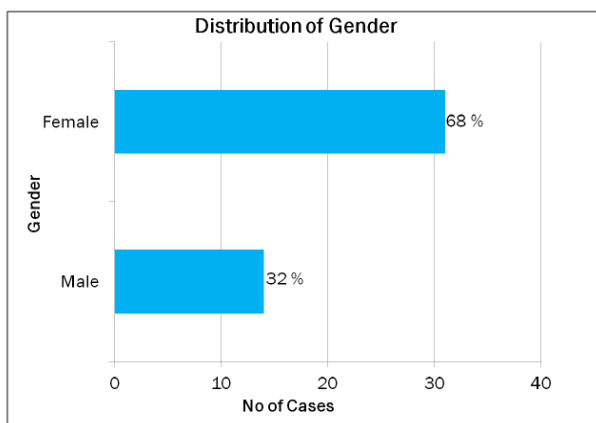


Figure 2: Bar chart of gender distribution within study group (N=45)

Gender distribution is more than two-third (68 %) are Female and the rest (32 %) Male.

In this study group, primary subjects are from High school or Graduate level of education (33.3% & 26.7 %) respectively.

About half of the study group hails from middle socioeconomic class (40 %), others from lower-middle and lower-middle socioeconomic class (24.4 % & 28.9 %) respectively. More than third of them were married (60 %) and 86.7 % were from Nuclear family, and half of them were unemployed (53.3 %).

Even though Adult ADHD is considered a neurodevelopmental disorder and primarily diagnosed in children, but children who were not diagnosed or treated tend to have symptoms even in Adulthood. ADHD is considered to be one of the factors in Intentional self-harm.

Among the 45 subjects, 4 of them was diagnosed to have Adult ADHD by two qualified Psychiatrist after the application of Adult ADHD self-reporting scale.

Our study subjects who had attempted intentional self-harm had a mean age of 28.27. 75% of the ADHD subjects and 53 % of the subjects without ADHD were between the age group 21-30 years. There was 71.1% of Female in the group without ADHD and 75% of Male in a group with ADHD.

Most of the study subjects in both the study groups were from the semi-urban environmental background (100 % and 68.3% respectively), 100% of items among the first group and 34% of them were from the second group were from middle socioeconomic status, as it is shared among the developing nations like India.

Majority of the study subjects from group 2 were married (65.9%) and (100%) all the items from group 1 were single, hailing from nuclear family on both the study groups.

A most common method of self-harm used by the study subjects was. Multiple tablets or multiple pills (25 % and 36.6% respectively), 50% and 70.7% of them in both the groups had medium suicidal intent and 10% of the study subjects had a comorbid psychiatric illness in both the study groups. 24% in each group had borderline personality, and 50% & 9.8% of them had a family history of suicide among both groups.

CONCLUSION

Finally, this work concludes that Even though Adult ADHD is considered a neurodevelopmental disorder and primarily diagnosed in children but children who were not diagnosed or treated tend to have symptoms even in Adulthood. ADHD is considered to be one of the factors in Intentional self-harm.

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Table 1: Description of sociodemographic characteristics of the study

Socio-demographic characteristics	Frequency (N- 45)	Percent %
• I. Education		
Illiterate	2	4.4
Primary school	4	8.9
Middle school	7	15.6
High school	15	33.3
Graduate	12	26.7
Post graduate/Profession	5	11.1
Total	45	100
• II. Socio economic class		
Lower socio	13	28.9
Lower middle socio	11	24.4
Middle socio	18	40
Upper middle socio	3	6.7
Total	45	100
• III. Marital Status		
Married	27	60
Single	18	40
Total	45	100
• IV. Type of Family		
Nuclear	39	86.7
Joint family	6	13.3
• V. Occupation		
Unemployed	24	53.3
Skilled	8	17.8
Semi skilled	10	22.2
Profession	3	6.7
Total	45	100

this Study, from a total number of 112 patients, 45 patients were taken up for the Study after satisfying the inclusion and exclusion criteria. Among the 45 patients with intentional self Harm, 4 of them was diagnosed with Adult ADHD with deliberate self harm.

No statistically significant data could be found when patients of Intentional self-harm with adult ADHD were compared with patients intentional self harm without ADHD.

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Conflict of Interest

Authors declared no conflict of interest.

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