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RESEARCH ARTICLE

TEST TO DIAGNOSE ATTENTION DEFICIT DISORDER (ADD), PREVALENCE AND RISK FACTORS

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Abstract

Background: Childhood attention deficit hyperactivity disorder (ADHD) is a prevalent neurodevelopmental disease. It is often identified in younger years and continues throughout maturity for many people. Children with attention deficit hyperactivity disorder (ADHD) may have difficulties focusing, may behave without considering the potential consequences of their actions, or may be extremely energetic.

Methods: The cross sectional study was conducted in 4 psychiatric clinics for a period of one month. The three junior doctors from each of the clinicians were chosen for the survey. The rationale for choosing this group is that they were able to give a clear idea about the etiology of the ADHD than the other health workers. The cross sectional study has been done to understand the number of ADHD cases arriving the clinic within a month. Thus, a total of 12 participants has been recruited in this study. The respondents were approached via mail and also over the phone. Before, conducting the cross- sectional study it is necessary to seek permission from the supervisor of the hospitals informing him about the purpose of the study.

Results: The study included 1058 participants. Of them, 62.5% use single method for diagnosing ADHD (n= 661). CAB-ADHD was used among 556 participants (52.6%). There were 41% believed that a combination between medication and psychotherapies is more effective (434%). ADHD was diagnosed using monitoring and observation among 583 (55.1%). ADHD test in adults was performed using interviewing the patient (n= 649, 61.3%). Child ADHD quiz was the most used (n= 600, 56.7%). Adults with ADHD spontaneously visits the clinic without compulsion by themselves (n= 524, 49.5%) or by a family member (n= 534, 50.5%). The most frequent barrier to hinder ADHD patients from seeking treatment was stigma (n= 435, 41.1%).

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Conclusion:ADHD prevalence, cause, and diagnosis are inconsistent. Therefore, doctors must discuss ADHD. This will assist identify pharmacological and nonpharmacological therapies. The most common test used to diagnose ADHD in adults was an interview. The most common kid questionnaire was ADHD. Stigma was the biggest obstacle to ADHD treatment.

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Introduction:-

Millions of individuals worldwide continue to struggle with symptoms of attention deficit disorder throughout adulthood. Problems with concentration, hyperactivity, and impulsivity are all symptoms of attention deficit hyperactivity disorder (ADHD) [1]. The purpose of this research proposal is to propose a study of ADD/prevalence, ADHD's risk factors, and diagnostic tests.

Children and adults of various ages suffer from attention deficit hyperactivity disorder. According to studies, the global prevalence of this illness is at about 5.6%. The prevalence of attention deficit hyperactivity disorder (ADHD) remains stable over time at roughly 5% among children and adolescents globally, according to a meta-analysis of 135 research [1]. Researchers have shown that the majority of children with ADHD are identified and treated before they become six years old. Comorbid conditions associated with ADHD include scholastic underachievement, reading/writing/behavioral difficulties, and antisocial conduct [2]. Boys are less likely to be diagnosed with ADHD than boys are. This condition has a hereditary propensity, suggesting that identical disorders often occur in families [3]. Cigarette smoking during pregnancy, psychiatric disorders, and environmental pollutants like polychlorinated biphenyls have also been identified as contributors [4]. Even though there have been studies done in the past, not much is known about how common ADHD is.

Authors ,Wamithiand colleagues [5], point out in their research that the current improvement in genetic, neuroimaging, and other biologically advanced approaches for diagnosing ADHD is at odds with the lack of objective methodology for the disorder's diagnosis. The diagnosis of ADHD requires the presence of reliable biomarkers with good sensitivity. More research is needed to better understand the pathophysiology of clinical conditions in the area of child psychiatry, specifically focusing on the development of children's brains [6]. Therefore, knowing the typical number of new cases presented to clinics and the diagnostic criteria utilized in clinics is essential for gaining an understanding of the disease's prevalence, risk factors, and actual diagnosis.

The current research aimed (1) to understand the prevalence of ADHD by recording the average number of cases arriving in the psychiatric clinic, (2) to understand the main risk factors of ADHD, as per the clinicians and (3) to understand the diagnostic testing that are normally done in a diagnostic settings.

Methods:-

Research design

A cross- sectional study of one month was conducted. Cross sectional studies are generally conducted to measure the outcomes and the exposure of the study participants at the sametime. It is also used to study the prevalence of a disease [7].

Research settings and participants

The cross sectional study was conducted in 4 psychiatric clinics for a period of one month. The three junior doctors from each of the clinicians were chosen for the survey. The rationale for choosing this group is that they were able to give a clear idea about the etiology of the ADHD than the other health workers. The cross sectional study has been done to understand the number of ADHD cases arriving the clinic within a month.

Data collection

Thus, a total of 12 participants has been recruited in this study. The respondents were approached via mail and also over the phone. Before, conducting the cross- sectional study it is necessary to seek permission from the supervisor of the hospitals informing him about the purpose of the study.

Each of the junior doctors was given a questionnaire containing questions about the prevalence, etiology and diagnostic criteria of the disease. The questionnaire consisted of closed ended questions. Questionnaire in place of interviews have been found as it consumes less time as well as helps in obtaining quantitative and measurable data and the respondents are more likely to answer without skipping the questions.

Ethical consideration

The main ethical consideration in the research includes voluntary participation, informed consent, anonymity and confidentiality [8]. Before the conduction of the research, it is necessary to take approval from the ethics committee. A consent letter should be sent via mail to each of the junior doctors along with a debriefing letter stating about the main purpose of the study. The data that was collected in this study was not introduced in other studies. Anonymity has to be maintained and the names of the participants should not be used in study.

Data analysis

The data analysis was done to evaluate and assess the data with the help of statistical tools for discovering useful information. A descriptive statisticswas used in the research. All the responses were expressed in pie- charts and were analyzed in a descriptive way. The responses for each of the questions were analyzed and are supported by research evidences which are included in the finding.

Results:-

The study included 1058 participants. More than half of study participants got patients with ADHD in their settings (n= 661, 62.5%). Upon asking participants about the frequency of receiving ADHD cases, 679 participants responded 1-2 patients per week (n= 64.2%). Figure 1 shows the frequency of receiving ADHD patients.

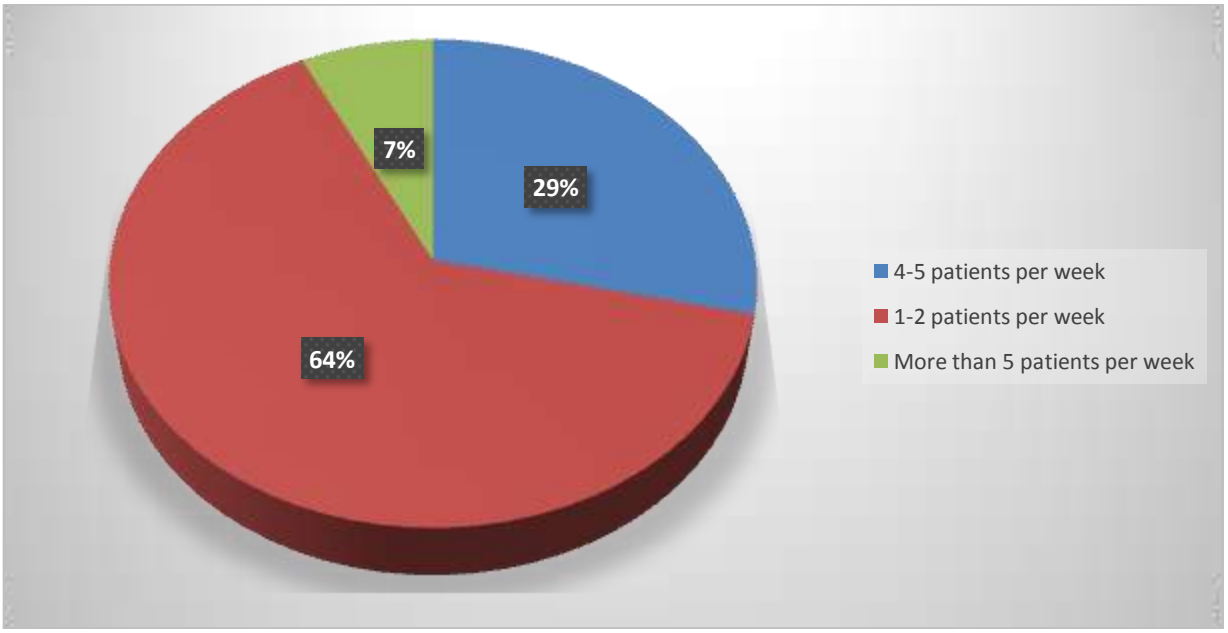

Figure 1:- Frequency of receiving patients per week.

Patients' age ranged from 4-12 years (n= 627, 59.3%). The main symptom at presentation was restlessness (n= 254, 24%). Figure 3 and 4 present the age group and presentation symptom among patients as reported by participants.

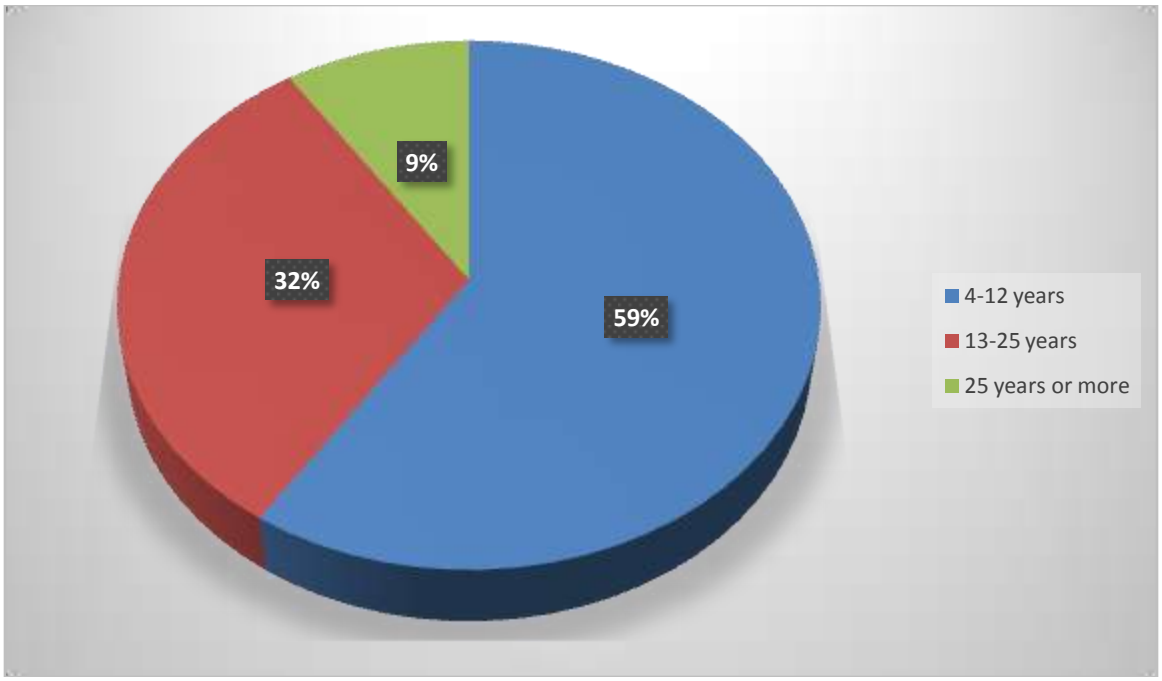

Figure 2:- Age group of ADHD patients.

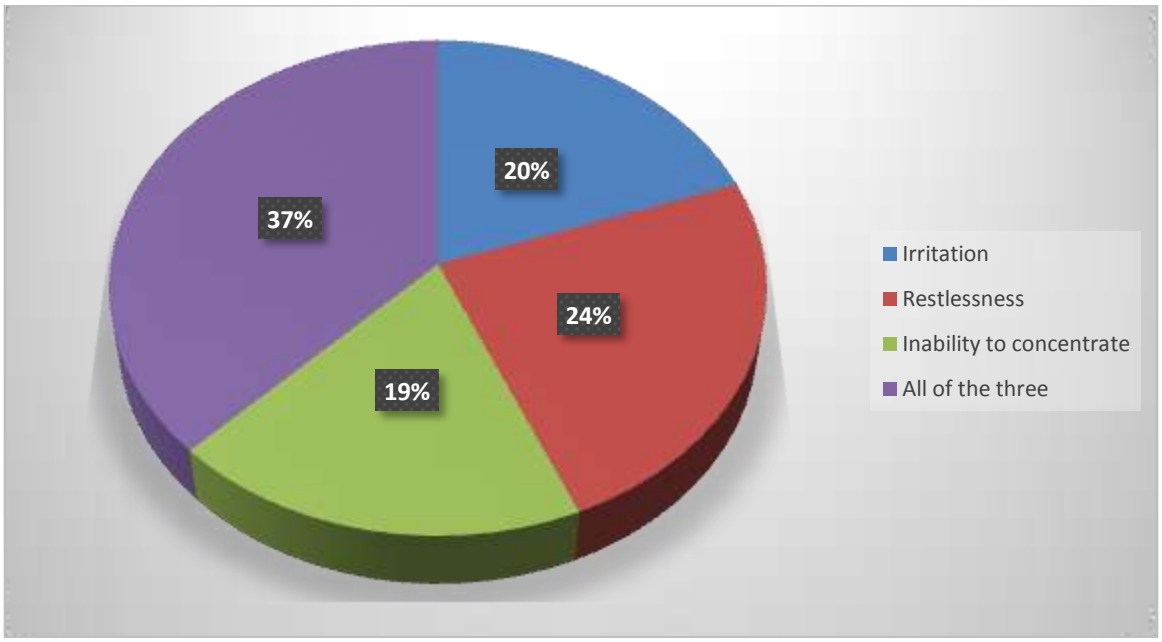

Figure 3:- Presentation symptoms among ADHD patients.

Participants were asked about the reason they think is responsible for ADHD. They answered that genetics is the main reason (n= 495, 46.8%). Figure 4 shows participants' responses. The most frequent risk factor as reported by study participants was family history (n= 474, 44.8%) (Figure 5).

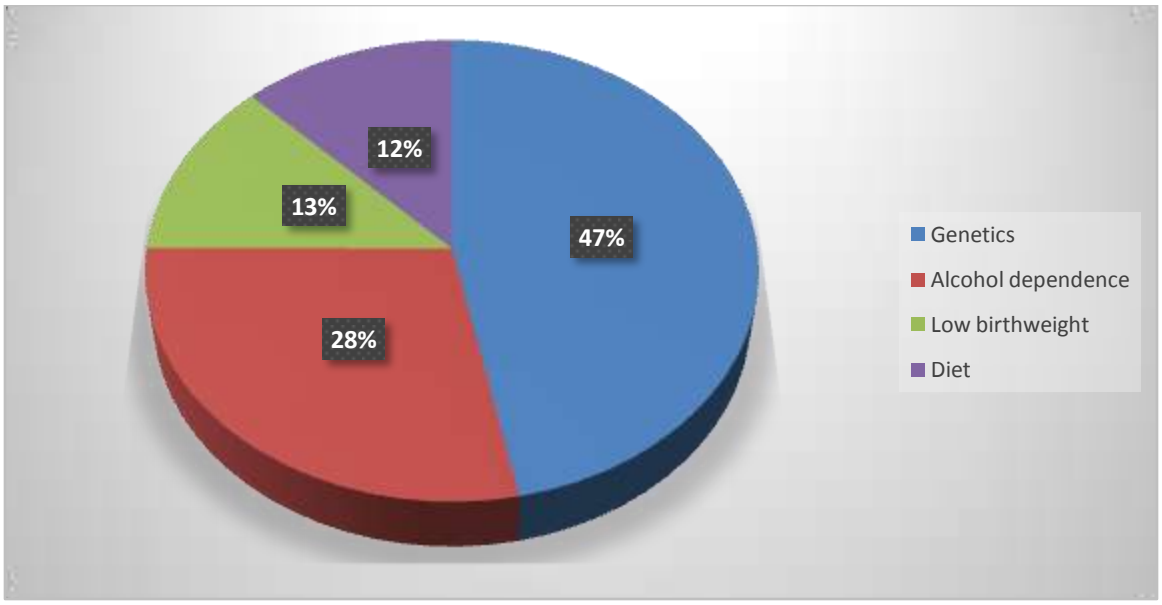

Figure 4:- Reason responsible for ADHD.

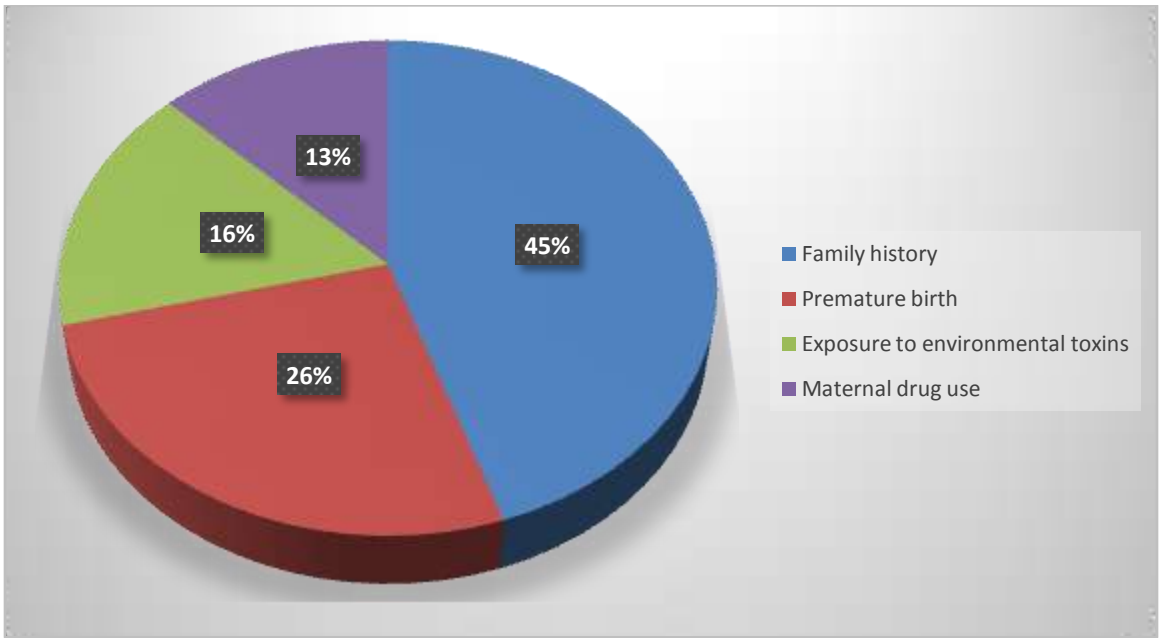

Figure 5:- Risk factor for ADHD.

Participants were asked about the diagnostic method and management approach and their answers are summarized in table 1. It is noticed from the table that 62.5% use single method for diagnosing ADHD (n= 661). CAB-ADHD was used among 556 participants (52.6%). There were 41% who believed that a combination between medication and psychotherapies is more effective (434%).

Table 1:- Participants responses to diagnosis and management items.

Item	Yes	No
Do you use a single method or diagnosing ADHD?	661 62.5%	397 37.5%
Do you use CAB-ADHD test in your setting?	556 52.6%	502 47.4%
Do parents opt for pharmacological treatment more than therapies?	637	421

	60.2%	39.8%	
Do parents comply with the treatment modalities you recommend?	765 72.3%	293 27.7%	
Are the psychotherapies more effective than medicines?	Yes	No	Both
	384 36.3%	240 22.7%	434 41%

ADHD was diagnosed using monitoring and observation among 583 (55.1%). Figure 6 shows the method of diagnosis as reported by study participants. ADHD test in adults was performed using interviewing the patient (n= 649, 61.3%) as demonstrated by figure 7.

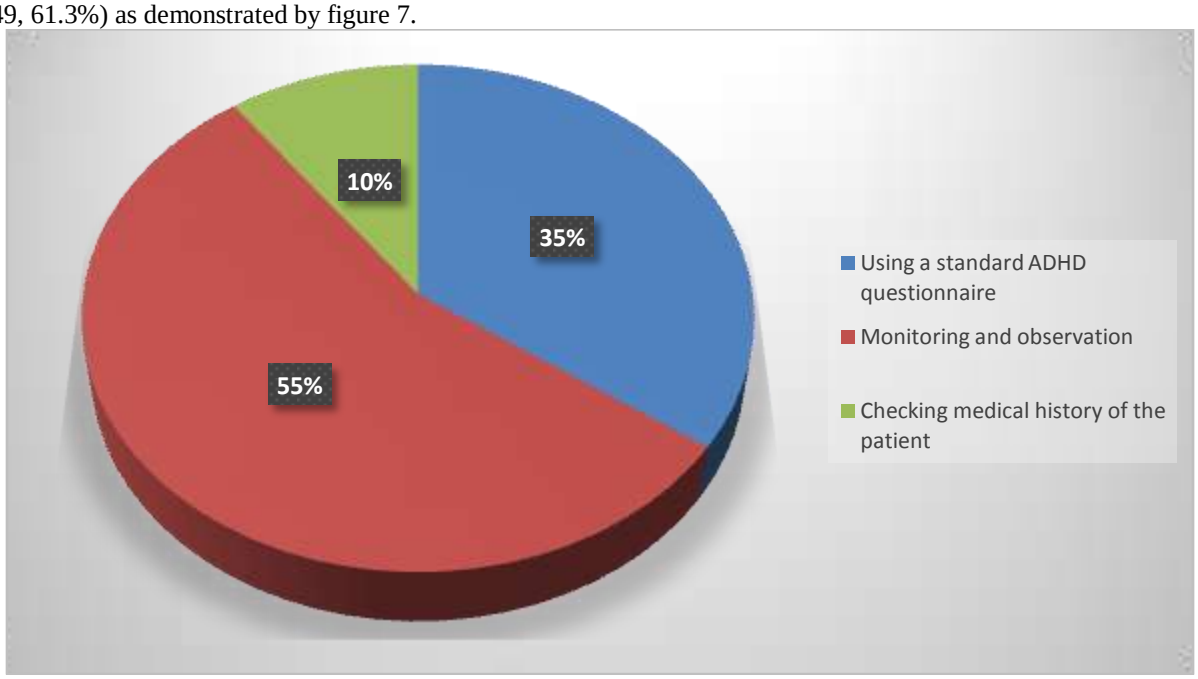

Figure 6:- ADHD diagnosis.

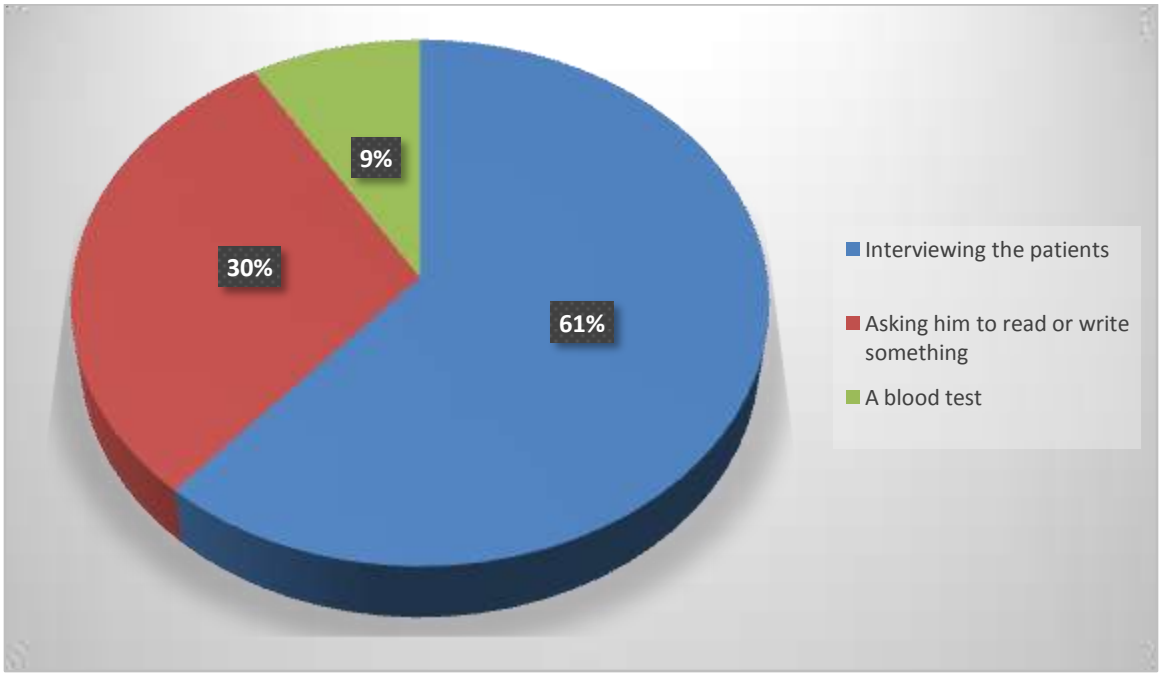

Figure 7:- ADHD test in adults.

Various questionnaires were used to test ADHD in children. Child ADHD quiz was the most used (n= 600, 56.7%) (Figure 8). Adults with ADHD spontaneously visits the clinic without compulsion by themselves (n= 524, 49.5%) or by a family member (n= 534, 50.5%).

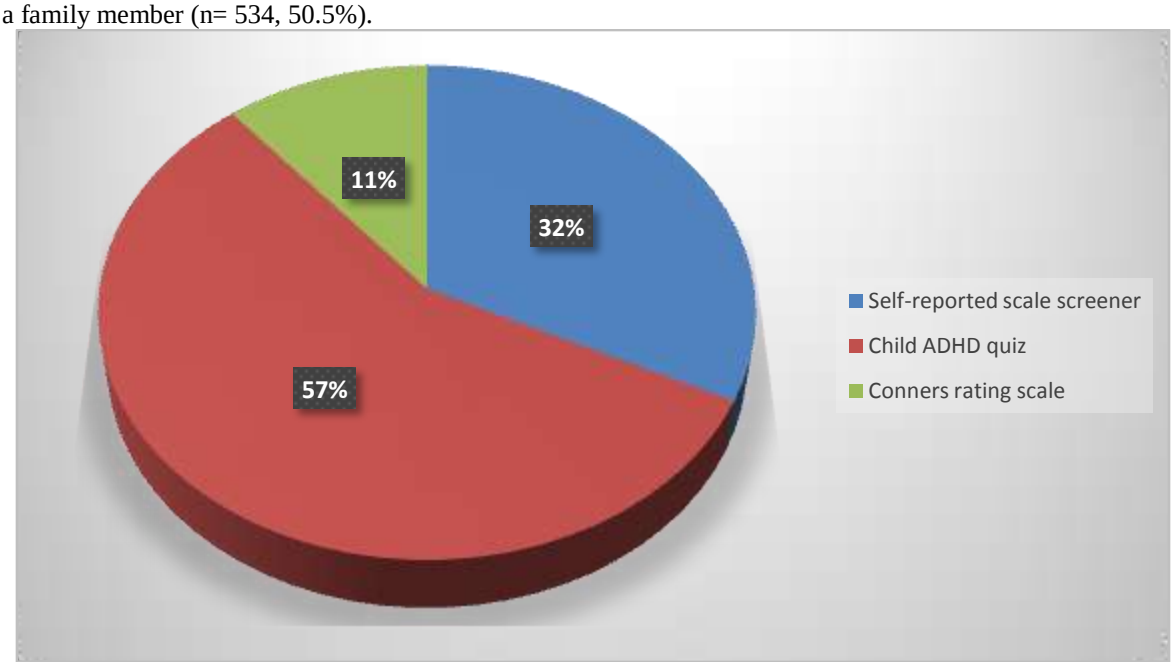

Figure 8:- Questionnaire used to test ADHD in children.

The most frequent barrier to hinder ADHD patients from seeking treatment was stigma (n= 435, 41.1%). Other barriers are demonstrated in figure 9.

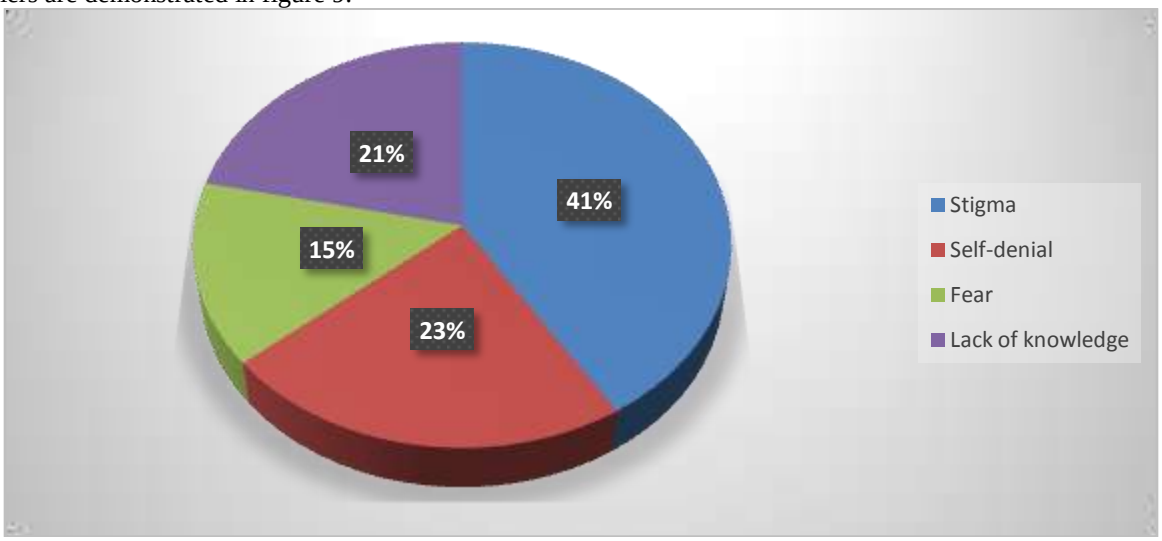

Figure 9:- Barriers to seek treatment.

Discussion:-

The DSM-5 defines ADHD as a condition when inattention or hyperactivity/impulsivity persists despite its negative effect on daily functioning or growth. Results from previous meta-analyses on the prevalence of ADHD have been inconsistent [9]. Systematic study findings put the global prevalence at 5.6% [10], while another found it to be anything from 8.5-13 [11]. percent, depending on whether the assessment informant was a parent, adolescent, or educator [12]. Another meta-analysis that included 175 papers also revealed a prevalence of 7.2% [11]. People of African descent, for example, are underrepresented in scientific research. The few studies that have incorporated ethnocultural groups [13-16] have been criticized for employing evaluation instruments that do not integrate cultural specificities and for utilizing samples from low-income areas [14, 16].

The DSM-5 states that the frequency of ADHD tends to be lower among Black youth than among White youth in the United States, despite the paucity of primary studies and the availability of only 1 systematic review that used data from African American persons and found a higher prevalence of ADHD among Black children than among White youth [9].

As an added note, the findings of research examining the prevalence of ADHD among Black people have been inconsistent [17-26]. The prevalence of ADHD among Black people has varied widely among research, with some reporting a rate of less than 5% and others reporting a rate of more than 20% [29-31].

The variation in the frequency of ADHD among Black people may have several causes. First, research has shown that there is a general tendency toward either overdiagnosis or underdiagnosis of ADHD [10-12]. Second, research has linked poor socioeconomic status (SES) to both the diagnosis of ADHD and its overdiagnosis [11, 13, 16]. Samples of Black people from low-income backgrounds have been used in several research claiming high prevalence rates of ADHD [29, 32]. However, other research suggests that poor socioeconomic status contributes to the underdiagnosis of ADHD among Black people in the United States [27, 33]. Children from low-income households are less likely to get accurate ADHD diagnoses because of a lack of insurance and limited access to mental health treatments [27, 34]. Furthermore, it was shown that cultural variations in parents' opinions on their child's conduct, cultural biases in testing and diagnosis, communication hurdles in the language of assessment, and prejudices based on racial discrimination all play a role [13, 14, 16, 30, 32]. Structured and institutionalized racism is linked to a higher concentration of low-income households in communities with large Black populations, such as the United States. Racist discrimination, profiling, and microaggressions are real threats to the mental and emotional health of these people, and they may have an impact on the actions of both young and old. These issues may further impede access to health treatment for people of African descent, who are disproportionately affected by ADHD [14-16].

Conclusion:-

Prevalence, etiology, and diagnostic information for ADHD are not consistently available. Therefore, it is important to get the physicians to open up about ADHD. This will help illuminate potential pharmacological and non-pharmacological treatments for the disorders. The study showed that ADHD diagnosis among adults was made by monitoring and observation and the most test used was interviewing the patient. While the most frequent used questionnaire for children was child ADHD quiz. The most frequent barrier among ADHD patients to seek treatment was stigma.

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