
PREVALENCE & PROBLEMS OF ADHD STUDENTS IN PAKISTAN; A CASE-STUDY OF EARLY CHILDHOOD EDUCATION

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ABSTRACT

Parents and teachers are the stage players in a child's mental and physical growth including learning progress. Attention deficit hyperactivity disorder (ADHD) is a neurological disorder in which children displays an excessive and unusual amount of inattention, hyperactivity and impulsivity. The study was conducted to examine issues and challenges faced by the parents and teachers while teaching and fostering ADHD children in mainstream classes. Particularly, teachers' understanding of an ADHD child brain functionality and their classroom strategies to counteract those challenges. The researcher used "Vanderbilt ADHD Diagnostic Teacher Rating Scale" to identify and classify ADHD students. Parents and teachers of ADHD students were interviewed through a questionnaire (close-ended & open-ended). In order to determine major issues and challenges faced by the teachers and parents in classroom or at home, two different on-line questionnaires were administered. Teachers & parents were mainly recruited through snowball sampling from all over Pakistan. Mostly private school teachers participated and few government teachers. Many parents (out of 35 only 8 responded) didn't respond to the questionnaire. Twenty parents of ADHD children were also recruited via WhatsApp/Instagram/Facebook ADHD parents' groups, total 28 (20+8) parents participated in the study. Major

problems forwarded by the teachers were; time management, lack of AV aids, large groups of students, little cooperation from parents and lack of special training. Whereas, parents of ADHD kids were suffering a lot due to their children being bullied and humiliated at school. They complained of teacher's negligence and urged for special care given to their children. Also, lack of specialized teaching programs and lack of counseling by school authorities. The study also revealed that hundreds of students being diagnosed with severe ADHD, were left untreated, and left out of schools due to improper policies for Inclusive education and ECE programs.

KEYWORDS

Neurological Disorder, Hyperactivity, Inattention, Impulsivity, Adulthood-ADHD

INTRODUCTION

Are the hyperactive kids new 'Normals' in coming days? This question constantly haunted the researcher, as the researcher witnessed one at home, two in the neighborhood and many at schools in the suburbs. To be hyperactive and being impulsive is normal for growing children. But a persistent pattern of hyperactivity, impulsivity or inattention among kids is not normal. Attention Deficit Hyperactivity Disorder (ADHD) is an acknowledged and widespread neurodevelopmental dysfunction. It is mainly a childhood disorder but can last into adulthood if not diagnosed and treated properly. According to The Centers for Disease Control and Prevention (2020) children with ADHD may have trouble paying attention to finish their classroom tasks on daily basis. ADHD learners experience more difficulties in their education and schooling than a regular student. Symptoms like failure to focus, difficulty in sitting at one place for a while, difficulty in controlling impulses, and anger-management issues can make it hard for an ADHD child to perform well in school. Sooner or later these children left behind in their education by scoring low grades but earning highly effected self-esteem. Moreover, their impulsive behavior and poor self-control make them socially rejected. Their fellow peers call them names and make fun of them. This situation can worsen their mental and emotional health. It is thereby very important for school aged children to be diagnosed earlier for treatment to help prevent the expansion of ADHD into adult ADHD.

Amen (2020) in his book "The End of Mental Illness" hit the world by placing horrendously shocking numbers of suicide attempts, drug overdose causing deaths, adults suffering from mental diseases and anxiety traumas in teens in United States. The situation is not very different in other parts of the world. According to The World Health Organization (2020) mental health conditions are growing worldwide. Mainly because of demographic changes, there has been a 13% rise in mental health conditions and substance use disorders in the last decade (to 2017). Around 20% of the world's children and teenagers have mental health problems. Suicide is the second principal

cause of death between 15 - 29 years old. Nearly, one in every five people in post-conflict situations have brain health issues. Evidence-based studies disclosed that lots of people suffering from mental diseases are committing suicide on daily basis and consuming drugs/alcohol to suppress their anxiety attacks and traumas. One of the major reasons behind the increase of mental stress and anxiety is to let children outgrow childhood into adult ADHD. Adult ADHD is the continuation of childhood ADHD. Comparatively, adults with ADHD have to suffer a lot while adjusting in their personal, social and professional life. They live in isolation, have poor self-esteem and poorer mental health conditions. By this means, it is extremely important to identify ADHD at younger age to possibly treat and address the recoverable problems.

The Centers for Disease Control and Prevention (2013) roughly 11% of 4- to 17-year-old children were detected with ADHD, this increase in number was very upsetting. But this doesn't mean that ADHD is only an American disorder. In Pakistan, medical research studies and clinical referral ratio of ADHD kids made it very obvious that things are getting multifaceted day by day in here too. Primary and pre-primary schools in Pakistan need to be vigilant to make early diagnosis of ADHD, to make learning and classroom environment effective and more inclusive in nature. To help children fighting against ADHD, children need continuous assistance from family, and sufficiently well-informed school teachers, counsellors to establish an appropriate educational system.

Pasha, Ijaz, & Qadri (2021) in their research study marked the research gap that in Pakistan no exact data is available to study cases diagnosed with ADHD. There is very little information available about prevalence of ADHD in Pakistan, which means that behind the scene there is the possibility of many undiagnosed or misdiagnosed cases related to behavioral problems linked with attention deficit hyperactivity disorder among children. ADHD indications are highly prominent in primary grades; hence, it is very important to make necessary arrangements for its diagnosis and treatment at school level to help prevent children outgrow with ADHD. ADHD children might exhibit different problems related to schools such as following commands given by teachers, sitting on chair during oral lessons, completing class assignments independently or active participation in class activities. Eventually, children earn very low grades and poor self-esteem. Nursery and Primary school teachers need complete understanding, knowledge and experience in this part to support and appreciate these children, and to successfully change their behaviour with effective self-regulated tactics. According to Mirza, Nisar, & Ikram (2017) studies suggest that introducing classroom interventions and specialized training programs improves teachers' perception of ADHD learners.

Also, according to research study conducted by Khan, Qayyum, & Iqbal (2019) it is

quite evident that prevalence of ASD and ADHD among adult psychiatric patients of Pakistan is high. Which is a clear indication of untreated childhood ADHD cases expansion into adult ADHD cases. Also “Illicit substance use and poor response to treatment also emerged as independent risk factors linked with presence of ASD and ADHD among the adult psychiatric patients” (p.423)

Katzman, Bilkey, Chokka, Fallu, & Klassen (2017, p.2) “ADHD has an estimated childhood prevalence of 4% to 7% with increasing evidence pointing to its continuation into adulthood for between 15% and 65% of individuals. Recent evidence supports the view that children with ADHD do not “outgrow” the disorder when they reach adulthood”. Unfortunately, in Pakistan we don’t have an exact figure of reported or unreported ADHD cases data available to assess trends in both adult and childhood ADHD. This study was thereby needed to understand the present scenario of ADHD in Pakistan.

Hamid (2020, p. 1671) according to the Journal of the Pakistan Medical Association “ADHD and learning disorder (LD) remain prevalent globally and are also speculated to have a high occurrence in Pakistan although very little information is available”. Research studies related to kids diagnosed with ADHD at early years of education is very important for their overall learning including their mental and physical growth in right direction. The study was thereby, designed to picture the classroom challenges and issues faced by the teachers and parents of students being diagnosed with ADHD. To assess classroom strategies adopted by the teachers, their understanding of ADHD learners and their participation need to be explored in detail for future prospects, and for more conducive learning environment.

Amen (2020, p.2) “We are not dealing with mental health issues, but we are dealing with brain health issues, and this one idea has changed everything”. Hence, the study is very much needed to change people perception of an ADHD child. It is not a mental disorder rather it is a brain with different functionality. The society need to better understand their brain functionality, their personality traits and their emotional needs to help them in their struggle with defeat ADHD.

The present study focused on subsequent research questions:

- Are the primary school teachers well-prepared to teach kids with special needs especially ADHD children?
- What are the problems faced by the teachers while dealing with an ADHD-learners in mainstream classrooms?
- What are the recommendations suggested by the teachers?
- What are the major areas for concern of ADHD parents?
- What are the suggestions forwarded by the parents to improve classroom setting and schooling of ADHD children?

What are the suggestions/recommendations to bring improvement in ECE & Inclusive education programs?

LITERATURE REVIEW

The study was quantitative in approach and followed the survey research procedure. Surveys are the most useful methods to gather information about people's general beliefs, knowledge, attitudes, thoughts and satisfaction level, which cannot be measure efficiently through any other means. Survey research method collects information using a questionnaire, administered to a sample set of papulation and generalizing the results to a larger population. However, interpretations of survey results require a strong, organized and detailed explanation of results. Survey-research studies are easy to administer and data can be acquired way faster than other means of data-collection. In short survey research studies are easy to conduct and cost-efficient in situations like COVID-19. During the pandemic survey research methods have surpassed all other methods due to its interconnectivity and accessibility into distant areas of the world within no time. (Gaur, 2020). Various digital tools are now available for designing surveys like Survey Legend, Survey Monkey and Google forms Unlimited etc. The researcher intended to establish the prevalence/challenges and understanding of ADHD among parents and teachers of young ADHD learners. For this reason, survey research design is the most suitable approach for the study. The present study used online Google Forms unlimited to design survey questionnaires.

A subset of ADHD kids' parents and teachers were recruited through Snowball sampling. Snowball sampling is a sampling method that researchers apply when the subjects are difficult to trace. So, is the case with tracing and diagnosing ADHD kids/parents and teachers. In such cases, by using snowball theory, researchers can track a few categories to interview and derive results. In the following study, the researcher also faced difficulty as not many victims (parents of ADHD) were willing to respond to the questionnaire. Still, the researcher tried to contact as many people as possible through various resources and platforms (i.e., WhatsApp groups, Facebook Groups, etc.)

The researcher of the following study used three different types of research instruments to collect data according to the objectives and research variables of the study. Firstly, in order to identify attention deficit hyperactivity disorder children in primary classes, a standardized tool developed by Wolraich ML, Feurer ID, Hannah JN, et al. (1998) "Vanderbilt ADHD Diagnostic Teacher Rating Scale" was used to assess and examine the most hyperactive kids in their classrooms. After being diagnosed with ADHD, teachers and parents of those children were asked to fill an online google survey regarding classroom environment, teaching strategies and learning status of ADHD kids. The online google survey questionnaire administered to teachers, was based on

twelve close-ended and two open-ended responses. Items of survey questionnaire were mostly taken from established rating scales and others were derived through research literature and requirement of the study. Third questionnaire or study tool was administered to the parents of ADHD kids based on eight close-ended and two open-ended responses asking about major challenges and recommendations for better schooling conditions of ADHD kids.

Survey analysis refers to the process of analyzing results from others, means participants' points of views. Data on its own means nothing without proper analysis. The researcher needs to make sure that the survey analysis produces meaningful results to make decisions and ultimately to establish valid results for the reasons you conducted a research study. In this study, the researcher collected two types of text responses; open-ended and close-ended. Close-ended questions were designed to create data that was easily quantifiable, and easy to code, so they're final in their nature. They also allow researchers to categorize respondents into groups based on the options they have selected. In order to deduce best possible results and judgements, the researcher followed these steps to interpret survey result analysis. First, main questions were organized into frequencies. Then, results were sieved by making comparisons of groups. The developing trends from the responses were questioned, scrutinized and categorized. Finally, the conclusions were drawn.

DATA ANALYSIS AND RESULTS

Teacher's perception of an ADHD child

Private school Teachers' overall perception of an ADHD child was significantly positive and appreciable. Unlike, 2% of teachers (Very few teachers from government schools) participated in the study and for them it was a mental disorder with learning disability. Overall, 65% teachers agreed that it is a redeemable disorder, if only effective teaching strategies would be adopted. They also declared that by adopting multiple effective teaching strategies, 45% ADHD learners showed significant change over time in terms of behavior, attitude and grades. 40% children were slow yet their progress was steady and consistent.

Instructional strategies adopted by most of the teachers

In order to counterfeit inattention, hyperactivity level and aggressive behavior in kids, majority of the teachers had very positive approach. A huge number of teachers, almost 85% teachers were willing to give limited freedom and empower the kid through self-regulation strategies while, only 14% teachers some from private and government schools wanted to control them strictly. In order to engage distracted students 54% teachers, help the kids to make use of their imagination into expressive arts and verbalizing skill story-telling, singing and self-expressing activities. Teachers of private schools (31%) with high fees are even more forward in engaging child by using

multi-sensory techniques. In which children are asked to do touch, type and see activities to enhance their focus span. Whilst, to modify aggressive behaviors, mostly teachers (57%) preferred to adopt rewarding and appreciating behavior toward an aggressive and agitated child. Again, only 14% (2% government and 12% private school teachers) opted for punishments. 28% teachers advocated to set positive role-models' strategies to improve behavior of impulsive child. Extreme activity level among ADHD kids is very common, however, 51% teachers were trained enough to teach them physical-relaxation skills to calm their fretful and irritated state of mind. 34% teachers were in favor to allow them moving around as they can understand their squirming and fidgety behavior is an inbuilt characteristic of disorder and not a purposeful act. 14% teachers believed in typical authoritative classrooms. Where ADHD children have no freedom to move but they are forced to stick on their chairs all the time.

Lack of Teachers Training and physical resources provided by schools

Statistical data revealed that majority of teachers (46%) individually researched on the topic that how they can deal with and communicate effectively with an ADHD child. While, only 34% teachers of highly-paid private schools stated to have special trainings for dealing with hyperactive kids and have sufficient resources to facilitate kids. Teachers from government schools and private schools with low fee structure complained to have limited resources. Although they can understand special needs of ADHD kids yet they are helpless to create an interesting, engaging and vibrant environment for ADHD learners. There is a lack of physical resources, audio-visual aids and instructional material for special kids.

Major Challenges and Issues for Class Teachers

Approximately, all teachers regardless of the fact that they are from government or private schools; complained to have discipline issues and time management. ADHD kids need extra time to complete class tasks every day. To keep them together with other kids is very bothersome. They create hurdles in the learning process of their class-fellows and peers. Also, counselling with the kids, is not possible every time they show tantrums. Giving them freedom to move around distracts other students. A teacher very beautifully explained "Children and teens with ADHD often pay the price for their problems in low grades, scolding and punishment, teasing from their peers, and low self-esteem. Meanwhile, you, the teacher, feel guilty because you can't reach the child with ADHD and wind-up taking complaints from parents who feel their kids are being neglected in the classroom. But it doesn't have to be this way". There must be some strategies to deal with the situation. Also, assessment criteria for these kids should be minimized or flexible. Teaching an ADHD child effectively is a two-way process. Families need to be equally vigilant and cooperate with the teacher for smooth sailing in learning process of the kid.

Suggestions placed by Teachers

Various important suggestions placed by teachers in their own words are “More knowledge and extra coaching should be given to teachers for such students to handle them in better way”. And “Extra time on tests; Instruction and assignments tailored to the child; Positive reinforcement and feedback; using technology to assist with tasks; Allowing breaks or time to move around”. Teachers also suggested to change their sitting positions. Such kids should never be back-benchers rather make them sit at front, where they can clearly see written classroom rules pasted in big letters on walls. Also, “Engage student in off-class practical activities like arranging the desks, cleaning the white board, participating in school functions for speeches or skits, etc”. “Classroom should be equipped with all new technology”. One of teacher from highly-paid private school put it in a nutshell by saying “Create a quiet area free of distractions for test taking and quiet study. Use visuals charts, pictures and colour coding. Create worksheets and tests with fewer items, give frequent short quizzes rather than long tests, and reduce the number of timed tests. Test students with ADHD in the way they do best, such as orally or filling in blanks. Divide long-term projects into segments and assign a completion goal for each segment...” This is the same as three-pronged strategy suggested and documented by U.S. Department of Education (2006) in their research report “Teaching Children with Attention Deficit Hyperactivity Disorder: Instructional Strategies and Practices”. In three-pronged strategy “the teacher determines how, when, and why the child is inattentive, impulsive, and hyperactive. The teacher then selects different educational practices associated with academic instruction, behavioural interventions, and classroom accommodations that are appropriate to meet that child’s needs. Finally, the teacher combines these practices into an individualized educational program (IEP) or other individualized plan and integrates this program with educational activities provided to other children in the class” (p.3).

Parents’ Biggest Fear

Parent’s responses disclosed some very disturbing facts. The greatest fear is that their child is being bullied, harassed and even humiliated by their fellow peers outside classroom during play times and breaks. Among other major problems recorded by parents were teacher’s irresponsive attitude, lack of emotional support, lack of facilities, proper psychiatric assistance and counseling with the kid. Other than academic skills their training for socializing is least concerned by school. Unfriendly environment causing children to resist going school. Another parent complained stated that “As a parent I’m facing issues like incomplete and dirty classwork. Seems like, teachers are not paying attention to build child capability to work, rather he is left on his own, unguarded, unattended and clueless”.

General Dissatisfaction

Parents' responses clearly indicated a general dissatisfaction among parents (41% were satisfied & 51% were not). 51% parents faced difficulties in order to get admission in normal schools due to poor grades and academic performance. Also, their children emotional well-being and growth is in question. 59% children were often misbehaved, being called useless and dumb by their class fellows. Although, 70% parents agreed that their child's academic progress or performance is properly communicated through class tests and progress reports, however, their behavioral check status was not maintained properly. Almost, 63% parents ranted "no special care is given to my child". A parent commented "A proper feedback for behavioural check is never given, such kids need to be protected from bad comments and behaviours of fellows. More creative or special need-based content be introduced at primary level".

Need of continuous meetings for feedback/follow-ups

"I am clueless and depressed" mostly mothers fumed over limited access to their children's classrooms. One of the mothers stated "I come to school to help my child but am not allowed to". Their concern regarding their kids daily and weekly progress is very important. Parents demanded to have a continuous feedback meeting with school teachers.

Shadow-Teachers for ADHDs

Majority of parents stressed upon the need to hire shadow teachers in primary classes. As one of the mothers stressed upon the fact that "They should arrange an extra helping teacher in the classroom for the child". Another stated "School should have their own qualified and experienced shadow teacher". Or "For reading and writing Shadow teacher should be hired for week students".

Suggestions placed by Parents

Parents recorded various suggestion to change instructional material, strategies, extra time for tests and for other class assignments. A mom suggested "We need to improve our ways of teaching; today's children want more activity-based learning system which help them to understand easily". Another suggested "ADHD or other children with learning difficulties need more time, space and attention to learn, adapt and grow. Normal curriculum and ways of teaching actually refrain many special children from learning as they need more time and interactive ways to understand concepts and to develop academic skills". Also, "Schools should have a child psychologist in their staff, they can understand what special needs are and how to handle them, have extra resources in school, should have a smaller number of children in class". Also, parents demanded to educate teachers more about ADHD/ ASD and ADD kids.

DISCUSSION

The outcomes of the study made it crystal clear that parents and teachers in general are not very well informed about ADHD and its consequences on later stage. The study also revealed some shocking facts regarding the prevalence, treatment, and diagnosis of ADHDs. As mentioned earlier, no confirm figures are available in Pakistan for ADHDs. Very few studies are conducted by medical students and clinicians only. Which indicated that the ratio of undiagnosed ADHD is high in Pakistan. The researcher in the present study only included school going students being identified and diagnosed with ADHD by their parents and teachers. But there are many children suffering from severe ADHD and comorbidities. These children were either rejected for any kind of schooling or the kids themselves rejected the school. The researcher through social media platform contacted many ADHD parents. Among them almost 200 ADHD kids were out of school. This figure is very alarming. According to them there are no special education plans for them, no therapies centers for them, availability of proper medical treatment is lacking everywhere. These ADHDs needs specialized individual program. The government need to make proper legislation for the inclusion of these kids. Or provide them special educational centers.

RECOMMENDATIONS

After analyzing the facts and figures provided by the teacher participants and parents, the researcher become able to confidently pass some judgements and draw conclusions. The whole study revolved around 28 ADHD students' parents, and 35 teachers mostly from private schools (both high/low fees). The present study confirmed that more boys are diagnosed with ADHD than girls. As among 28 ADHD students 75% were boys and 25% were girls. Most research studies proposes that Boys are more likely to be diagnosed with ADHD than girls (CDC, 2016). No exact figures are available for ADHD prevalence in Pakistan. However, this does not mean that we don't have ADHD related issues and problems in our children. In Pakistan, early childhood education policies need amendment to make diagnosis of children at primary years of education.

Academy of Pediatrics (2000) "The assessment of ADHD should include information obtained directly from parents or caregivers, as well as a classroom teacher or other school professional, regarding the core symptoms of ADHD in various settings, the age of onset, duration of symptoms, and degree of functional impairment" (p.9). Diagnosis of ADHD at early stage is very important for the betterment of kids diagnosed with ADHD. Previously, it was supposed that ADHD was outgrown in mid to late teenage years. It is now clear that two thirds of children with ADHD will continue to have problems attributable to ADHD as adults and because ADHD is a long-lasting disorder, will require treatment throughout their lives.

The study results revealed that somehow private schools are doing great in this regard. Teachers' understanding of the brain function and impulsive behavior of an ADHD child is appreciable. Their teaching strategies and classroom environment is comparatively better than government schools. The researcher couldn't get enough data from government schools; hence it is not a valid judgment to say that government schools are not properly dealing with ADHDs. However, there is a lot more to do. As we can see a clearer dissatisfaction from parents' side. Parents demanded extra care, special attention and a shadow teacher for their kids to keep them well assisted in classrooms and even outside the classroom. Also, these kids are being bullied and humiliated by their fellows in the absence of teachers, which hurt their self-respect. ADHD kids need more time and space to finish their tasks and assignments. It is the pressing need of the time due to an increase in hyperactive-inattentive kids that primary school system needs to be changed and adapt according to the special needs of ADHDs. ADHD kids are not abnormal but they are also not normal and leaving them untreated would be a great injustice. It is better to treat complexities at right time rather than struggling with these complexities during adulthood.

It was also determined by teachers that dealing with hyperactive kids in a class of approximately 20 to 30 students is very difficult for them. Their continuous movement and impulsiveness distract other students. There must be some helper or shadow teacher in the class to help students with reading and writing. Lots of activity corners are needed to set up for continuous engagement and involvement of inattentive and hyperactive kids.

Parents exclusively showed their disturbance over the lack of daily/weekly feedback and follow-up meetings by teachers. Parents should have walk in access into the classroom to make it a more familiarized place for their kids, who are reluctant to attend school or dislike school. The study also revealed some shocking facts regarding the prevalence, treatment, and diagnosis of ADHDs. As mentioned earlier, no confirm figures are available in Pakistan for ADHDs. Very few studies are conducted by medical students and clinicians only. Which indicated that the ratio of undiagnosed ADHD is high in Pakistan. The researcher in the present study only included school going students being identified and diagnosed with ADHD by their parents and teachers. But there are many children suffering from severe ADHD and comorbidities. These children were either rejected for any kind of schooling or the kids themselves rejected the school. The researcher through social media platform contacted many ADHD parents. Among them almost 200 ADHD kids were out of school. This figure is very alarming. According to them There are no special education plans for them, no therapies centers for them, availability of proper medical treatment is lacking everywhere. These ADHDs needs specialized individual program. The government need to make proper legislation for the inclusion of these kids. Or provide them special

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