

## An Islamic Wholly Understanding of Attention Deficit/Hyperactivity Disorder (ADHD)

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### Abstract

*Attention Deficit/Hyperactivity Disorder (ADHD) encompasses neurobehavioural changes that may affect the child's development, including inattentiveness, hyperactivity, or impulsivity. Before this, without even knowing, they were troublemakers as they acted in different possible ways to get attention. In the latest update, both Attention Deficit Disorder and ADHD are becoming a proposed health condition in the psychiatric field. Early detection suggested that lack of concentration and focus, memory deficit, and being disorganised are signs and symptoms of ADHD. It does affect daily routines, job employment, and social interactions as ADHD becomes more severe than ever. The prevalence of ADHD is becoming more profound in local community settings and global stage population. Therefore, in Islam, shaping and nurturing them to be who they want to be and life is what you make of it. Thus, this review focuses on brief Islamic perspectives of the problem, definition and diagnosis of ADHD, and treatment options and management available for ADHD.*

**Keywords:** Neurobehavioural changes, Impulsivity, Memory Deficit, Disorganised, Global stage population

### Abstrak

*Attention Deficit/Hyperactivity Disorder (ADHD) mencakup perubahan neurobehavioural yang dapat mempengaruhi perkembangan anak, termasuk kurangnya perhatian, hiperaktif, atau impulsif. Sebelumnya, tanpa mereka sadari, mereka adalah pembuat onar karena mereka bertindak dengan berbagai cara untuk mendapatkan perhatian. Dalam update terkini, Attention Deficit Disorder dan ADHD menjadi kondisi kesehatan yang diusulkan di bidang psikiatri. Deteksi dini menunjukkan bahwa kurangnya konsentrasi dan fokus, defisit memori, dan tidak terorganisir adalah tanda dan gejala ADHD. Hal ini mempengaruhi rutinitas sehari-hari, pekerjaan, dan interaksi sosial karena ADHD menjadi lebih parah dari sebelumnya. Prevalensi ADHD menjadi lebih besar di lingkungan komunitas lokal dan populasi di tingkat global. Oleh karena itu, dalam Islam, membentuk dan membina mereka menjadi apa yang mereka inginkan dan hidup adalah apa yang Anda lakukan. Oleh karena itu, tinjauan ini berfokus pada*

*perspektif Islam singkat mengenai masalah, definisi dan diagnosis ADHD, serta pilihan pengobatan dan penatalaksanaan yang tersedia untuk ADHD.*

**Kata Kunci:** *Perubahan neurobehavioural, Impulsif, Defisit memori, Tidak terorganisir, Populasi di tingkat global*

## A. INTRODUCTION

In Islam, any neurodevelopmental disorders require special treatment as they have the right to education. ADHD is a mental illness associated with problematic manner affecting a child's development throughout playful years and being inattentive and impulsive at the same time. The mind is cluttered; without knowing and further noticing, their understanding of their health problems remains a mystery. Thus, they are enthusiastic about strategic planning for their studies and employment. Based on the given situation, they are inattentiveness, hyperactivity, and impulsiveness (IvyPanda, 2022).

It is all about a shorter time involving a lack of attention, more playing activities, and a longer time for a response. Despite being active, they got the chance to befriend, but they still felt butterflies inside their stomach as if it was their first attempt to get to know each other. Thus, the solution to the problem does not go away with medication, and with confidence, they brought themselves up and were able to voice out their concerns. At an increasing rate, many young people are restarting their medication in early adulthood (Titheradge et al., 2022). By taking a lower dosage, the side effects subside as it is safe to make a halt on the medication. Therefore, non-pharmacological and psychoeducation approaches are viable for treating and managing ADHD. The discontinuation from taking medicine at a later stage does not affect concentration and social communication skills when applying for a job.

As mentioned, it is not just a theory but a fact in which children deserve a better education. It is a start to a new hobby, including going creative and curious, and a child's play that they can learn from them. Even a highly qualified psychiatrist suggested the same in loving and nurturing them. In other words, they will feel content and happy by enjoying life. Keep yourself busy and always be there for them. Treat it not as an emotional therapy but more of who they are. Emotional stability is the key to a sustainable lifestyle. Thus, emotions do play an essential role in interacting with others and

emotion coaching do assist them in making their own decisions to build themselves up (Ozge, 2021).

This paper aims to provide the latest updates in informing children, parents, educational practitioners, and medical health experts about the health problem. They should be well-informed and aware of their health concerns in preventing and undergoing treatment for the disorder. There are some insightful tips for managing and strategising their coping skills. Besides medical awareness, there is also a need for more research emphasis on the topic in the medical field.

## **B. METHODOLOGY**

This narrative review consisted of sources from personal stories and clinical histories to give an overview of ADHD and the treatment options available for ADHD. There is still a review of the past and current behavioural reactions of ADHD. There are new classifications of ADHD according to severity and adaptability skills in coping strategies.

## **C. RESULT AND DISCUSSION**

### **1. Pathological History Of ADHD**

For over 200 years, scientific contributions towards the health condition have been going on. In 1798, Sir Alexander Crichton proposed that there is a root cause of the behaviour problem among people, which he stated started during early childhood (Gunnerson, 2020). The condition is called attention deficit hyperactivity disorder (ADHD). Sir George Frederic Still admired the intellectual ability of a group of children, but they had a unique characteristic of unreadable behaviours in 1920 (Holland, 2021; Gunnerson, 2020). Altogether, 15 boys and five girls around that time (Gunnerson, 2020). The Food and Drug Administration (FDA) provides Benzedrine as a medication for children to stimulate brain control power, which in return pays off (Holland, 2021; Gunnerson, 2020). The term ADHD has not yet been introduced in 1968 to address the hyperkinetic reaction that a student shows without being conscious of it (Holland, 2021; Gunnerson, 2020). Then, in 1980, the previous term used was attention deficit disorder, but in 1987, ADHD became it (Holland, 2021; Gunnerson, 2020). The three combinations of inattentiveness, impulsivity, and hyperactivity can either be

collateral or individually separated to get a picture of the pattern as a whole. Thus, today's discovery is explained further in the following sections.

## 2. Types of ADHD

ADHD is not a single distinct point of a health problem that can be in the form of vastness. The traditional type of ADHD is called classical ADHD. The classifications include a child's emotional development, adaptability, cognitive skills, and personality. The classification is to have a proper intervention in aiming at various cohorts of subjects. Many people are still unfamiliar with the term and clinical abbreviation of the disorder. The classification of ADHD is for understanding and giving support by a group of observers by no means of educating people (Wienen et al., 2019).

First, classical ADHD develops even during adulthood due to the rationality and maturity of thinking (Miller, 2019). Inattentive ADD is more of an introverted personality and feeling unmotivated (Miller, 2019). Then, anxious ADD has to do with anxiety disorder, in which they need to remain calm and composed (Miller, 2019). Overfocused ADD refers to someone who is hyper-focused or too concentrated on one part only without minding the other part (Miller, 2019). The ring of fire ADD ignites the brain activity by making them confused and have multidisciplinary disorder (Miller, 2019). Frequent mood swings and overflowed negative energy are the symptoms of limbic ADD (Miller, 2019). They may experience sleeping problems, isolation problems, and loss of interest. A group of people who lose it and tend to have a temper when having something unresolved is called temporal ADD (Miller, 2019).

Based on the given manifestation of each type of ADHD, the severity of it ranked from the traditional type until the final stage. If the problem enrages, there could be unstable emotions and a lack of social support. However, by diagnosing the problem, the solution could be further validated and handled in the safest method. According to Hippocrates in Greece, the terminology of ADHD has evolved (Types of ADHD, 2022). The emergent symptoms of inattentiveness, hyperactive-impulsive, and the combination of the two are six months earlier (Types of ADHD, 2022). Different children have different interpretations of the problem and seek approaches to handling it.

### 3. Prevalence of ADHD

National population surveys reported an increase in the prevalence from 6.1% to 10.2% in 20 years from 1997 to 2016 (Abdelnour et al., 2022; Xu et al., 2018). On a global stage, 5%-7.2% of youth and 2.5%-6.7% of adults are prevalent with ADHD (Abdelnour et al., 2022; Posner et al., 2020; Thomas et al., 2015; Song et al., 2021). However, it indicates a higher prevalence among the US population, around 8.7%, equivalent to 5.3 million (Abdelnour et al., 2022; Bozinovic et al., 2021). In 2019, US children aged 3 to 17 years were diagnosed with ADHD at a percentage of 8.8% (Kverno et al., 2024). Overall, almost half of the children inherited ADHD from their parents (Ragadran et al., 2023).

The educational, ideological, and geographical links have spread wild guesses about migrating ADHD. Canadians, Americans, and British share similarities when facing intractability problems and mental health problems. Ugandans have a short temper, making them more uneasy and more prone to mental health problems as well. In Asian countries, India uses a gentler and softer approach compared to China. India might use the reverse psychology technique for their children to be more positive and give back to the community. In China, their discipline and strictness had taught them to be confident and fearless. Racial and ethnic disparities exist in the treatment of ADHD (Shi et al., 2021). The time of initial diagnosis and early stages of receiving treatment do have different racial and ethnic differences (Shi et al., 2021). As the condition of the psychiatric condition progresses, the prescription may also depend on the racial and ethnic backgrounds. For instance, African American children tend to have a higher prevalence than White Caucasian children (Shi et al., 2021). Hispanic children were 35% less likely to be diagnosed with ADHD compared to White Caucasian children (Shi et al., 2021).

In Malaysia, the prevalence of ADHD has to be 2.75% in boys and 0.6% in girls (Ragadran et al., 2023; Gomez & Hafetz, 2011). There is approximately 4% of adults in the general population who are prevalent with ADHD (Ragadran et al., 2023; Kessler et al., 2005). Based on a local cohort, the total prevalence of parental ADHD was estimated at 33% (Ragadran et al., 2023).

In Indonesia, under the laws and regulations, there should be no discrimination among students with ADHD and other special needs (Hapsari et al., 2020). Students with ADHD have difficulties in their studies and many attempts to optimise learning to achieve better results (Hapsari et al., 2020). Teachers have a special bond with students to get to know them better and lay out their problems even more (Hapsari et al., 2020). It was quite an experience to have with ADHD. There is special training for teachers at universities and government bodies to avoid misconceptions about misbehaviour problems. It will increase their confidence in engaging with each other in the future. Thus, the prevalence of ADHD in Indonesia is between 0.4% and 26.2% and measures up to a 2 to 1 for a male-to-female ratio (Kinasih & Rochmawati, 2020). English vocabulary taught students language development, expressions, and moving stories with interactive games to enjoy with friends (Kinasih & Rochmawati, 2020).

#### **4. Diagnosis and Treatment**

The diagnosis and treatment of ADHD are still under discussion since there are cases in which people mistake and misunderstand the topic. Sometimes, it is just a made-up story and a new science recommendation without clinical approval. Family dramatic involvement can still be overdramatising the undergone treatment. ADHD is recognisable but not noticeable among people, including those who do not realise having it. Thus, the purpose of this research is to underline the importance of diagnosis of ADHD in managing treatment strategies for ADHD. Approximately 80% of the treatment are non-pharmacological, such as social skills training, sleep and physical activity therapies, meditation, and hypnotherapy (Nazarova et al., 2022). The remaining 20% is pharmacological interventions that include prescription of medications (Nazarova et al., 2022).

It seems to be a unique characteristic in personality, but it may become a longevity problem throughout their childhood. It is a series of behavioural changes that sparks their parents or caregivers' attention in upbringing about their distractions and undisciplined mannerisms to go on and on that can be classified into the following categories:

- (A) Sudden spontaneous reactions that explain their extreme hyperactivity during that time.
- (B) Most of the time, feeling distracted by the surroundings.
- (C) The combination of (A) and (B).

Through their disciplinary act, they will be able to learn and develop new skills in being practical and enjoyable in what they are doing. Thus, anxiety disorder and chronic stress are the main triggering problems towards the emotional breakdown when interacting with the other person (Nazarova et al., 2022).

Further, there is still a lack of attention on measuring their hyperactivity, attention span, and spontaneity in their acts of behaviours. It is challenging by giving them a hard time to figure out what is going on. Thus, keeping themselves well in check may lead to other problems, distraction in their subject's syllabus, being spontaneous and excited about engaging themselves in a group activity, and not having a clue about the solution to their problems. Hence, behavioural therapy is statistically significant for managing ADHD without having the secondary options of getting any medications (Nazarova et al., 2022).

Treatment and rehabilitation may assist in enhancing their abilities and functionalities to excel in their favourites and interests (Idris & Razak, 2021). In Islam, there is this giving back to the community to build a nation. Therefore, there are exceptions to receiving kindness and recognition in sharing with others. There are also many exemplaries given by Islamic world leaders, including Umar Al-Khatab and Al-Walid ibn Abd Al-Malik. They are thoughtful and likable by the community in having equality even as a human being and not as someone else.

There is an evident statement showing that there is an enhancement of Islamic positive attitude towards accepting them as an exceptional child (Mierrina, 2019). It is estimated there is 10% of children in the world who are exceptional (Mierrina, 2019). The life guidance of a Muslim should be as firm as Umar bin Khattab based on noble morals of Al-Qura'n and Hadith (Alviyan, 2021). Although in a different situation, the children will experience more on their responsibilities and submissiveness towards Allah. Al-Walid ibn Abd al-Malik established the first care home for intellectually challenged individuals (Idris & Razak, 2021). Thus, Islam ensures full right and caring for them.

## 5. Aetiology Causes of ADHD

ADHD is an inheritance problem. It grew upon the family traits; the best way to prevent symptoms from popping up is to find a cure in healing the problem over time. Noninherited neurological factors affecting brain development or resulting in brain injury in ADHD pathogenesis (Bealnger et al., 2018). External environmental factors include the toxic substances and pollutants that affect brain development, such as cigarette smoking and alcohol intake.

As mentioned before, it is a look out for them to evaluate and nurture them to build up their characters. Self-independent thinking is crucial for emotional intelligence. Every day, they seize the day to ensure their adaptivity in life. Interpersonal skills build up their confidence and interaction with others emotionally and behaviourally. The term genetic essentialism, a set of cognitive biases in interpreting genetic predisposition of causative behaviour (Koi, 2021). Due to genetic variations, neurobiological, and behavioural diversity, there should be some variance in environmental factors for practising self-control among individuals with ADHD (Koi, 2021).

By trying to catch up with other students and demanding good grades, in the end, family is the best in motivating and giving them the best advice in life. Therefore, teachers and students are also in a profound relationship to assisting them to balance studies and life. By inspiring others, they are the songs and sonnets of life. Positive paternal motivation and words of encouragement building up their children's self-esteem (Wannapaschaiyong et al., 2023). The caregiver's age, education level, and monthly family income had significant correlations with self-esteem of children and teenagers with ADHD boosting ADHD healthy treatment outcomes (Wannapaschaiyong et al., 2023).

## 6. Risk Factors of ADHD

The prevalence of ADHD is four times higher in males than females (Ministry of Health Malaysia, 2020). ADHD increases as the genetic similarities in relatedness increase, such as in monozygotic and diazygotic twins (Ministry of Health Malaysia, 2020). ADHD has a high inheritance, to be ranged from 71% to 90% for heritability (Ragadran et al., 2023; Thiruchelvam et al., 2001). Prenatal and environmental factors influence genetic variations in brain development (Ministry of Health Malaysia, 2020). A sudden traumatic effect may also cause a brain injury and increase the risk of ADHD (Ministry of Health Malaysia, 2020). After accounting for the

number of hours watching television, the risk of developing ADHD will soar (Ministry of Health Malaysia, 2020). It also shows that lead toxicity is associated with ADHD (Ministry of Health Malaysia, 2020). Therefore, preterm birth, neonatal disease, high birthweight, lower level of mother's education, fewer offspring were predisposing of ADHD risk factors (Soheilipour et al., 2020). Thus, family with a high socioeconomic status tend to have lower chances of developing ADHD as compared to those with low socioeconomic status (Soheilipour et al., 2020). During preterm and after birth term, there is a high chance of preventing ADHD in a safe environment (Soheilipour et al., 2020). In addition to environmental factors, exposure to tobacco smoke is hazardous during pre-natal and/or childhood (Moise, 2018).

## **7. Pathophysiology of ADHD**

The brain disruption includes neurotransmitters, brain structure, and cognitive function shown to be related to the pathophysiology of ADHD (Smith, 2019). There is a deficit in neurotransmitter pathways in which the electrical and sensory signals may have problems in connectivity with the neurons. The efficacy of stimulants is still in progress due to their efficacies in preserving the structure of the brain (Smith, 2019). The storage capacity and memory encapsulated in the brain may slow their behavioural acts in performing any tasks. By remembering the simplest ones, the complexity of the brain is hard to handle.

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## **8. Medical Treatment Options of ADHD**

Stimulants may cause adverse side effects, including feelings of hunger, drastic weight loss, decreased growth velocity, insomnia, increased heart rate and blood pressure, headaches, stomachaches, and mood swings (Newcorn, 2023; Mechler et al., 2022). Besides that, long-term treatment among ADHD patients, especially stimulants, will cause a more chronic health condition, such as heart disease and other arterial diseases (Kverno et al., 2024; Zhang

et al., 2023). ADHD adults were studied to be highly diagnosed with ADHD undergoing emotional dysregulation, including bipolar disorder, anxiety disorder, and depression (Kverno et al., 2024; Choi et al., 2022; Katzman et al., 2017; Marshall et al., 2021).

### **9. Circadian Clock and ADHD**

The circadian rhythms change drastically after being diagnosed with ADHD. Even the light colour signifies the mood and the amount of heat emitted during sleeping hours. Hence, the lack of concentration in studies and the lack of focus on daily chores may cause depression. Thus, dopamine and serotonin are two chemicals that need to be regulated since the neurons consist of electrical and chemical signals that ignite the sparks of sensory neurons for the stimuli to respond. Behaviour therapy and support are also needed by providing them with vitamins and minerals to increase and regulate dopamine (Relajo-Howell, 2022). Other than that, flexible hours of playing, reverse psychology, staying focused, ball squeeze or squishy toys to avoid further fidgeting, and always be there for them.

### **10. Islamic Perspective Towards ADHD**

Islam is a universal religion based on the Quran (Idris & Razak, 2021). They have obligations and responsibilities in protecting God's gift. Children are God's creation. Thus, it is their responsibility to love them. Therefore, enjoying a good life by being fair and equitable to each other is also one of the ways to understand their religion. As mentioned before, education deserves the best in portraying and painting the best ummah in the world. Remember to be nearer to Him without having the ego to step down from the seat.

### **D. CONCLUSION**

Every child ever dreamt of becoming someone. The parents worry about their adaptability and social skills in adjusting. Therefore, ADHD is the best for early and correct detection. The accelerated increasing number of children with ADHD in a modernised concept tend to face a challenge in their learning, behavioural, and social interaction. In Islamic practice, equality and pureness of hearts paved the way to healing and endurance. Other practices had the same pace, so it is a universal truth in loving children and loving them just as they are. In Islam, mind should stay in focus, especially in what they intend to do. For children, they seek love and affection to be happy and carefree. There is such a social justice issued in treating children from Islamic perspective. Islam has ordained to treat people equally. In Islam, the treatment and intervention is to recite the prayer and seek emotional support. A parent's understanding accompanied by a well

notable knowledge may assist the child to be more outgoing and outspoken in accordance with the Islamic teachings.

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