https://doi.org/10.33591/sfp.47.7.up1

MANAGING ATTENTION DEFICIT HYPERACTIVITY DISORDER IN A 10-YEAR-OLD BOY – A PATIENT'S JOURNEY TO WELLNESS AND A FAMILY PHYSICIAN'S ROLE

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ABSTRACT

We describe a case of Attention Deficit Hyperactivity Disorder (ADHD) in a ten-year-old boy. We explore the stages of his therapeutic journey and the role played by family physicians along the way, including initial difficulty accepting the diagnosis, how this was resolved, the importance of parental acceptance of diagnosis before progressing with treatment, setbacks and how these were overcome. We also discuss the diagnosis and treatment of ADHD and the role of family physicians in managing ADHD.

Keywords: Parental acceptance, parent training, diagnosis, treatment, methylphenidate

SFP2021; 47(7) : 43-47

INTRODUCTION

Attention Deficit Hyperactivity Disorder (ADHD) is a common neurodevelopmental disorder characterised by inattention, hyperactivity and/or impulsivity inappropriate for the age.[1] Managing ADHD is a therapeutic journey beginning with acceptance. We describe a case of a ten-year-old boy whose parents had difficulty accepting his diagnosis and his subsequent progress involving the role of family physicians.

PATIENT'S/PARENTS REVELATION: WHAT HAPPENED?

C was referred by the Ministry of Education school counsellor to REACH[a] at nine years old for ADHD assessment after behavioural difficulties in school. C started having attention and behavioural issues at seven years old. He had difficulty paying attention and following instructions in class, disturbed his peers and got into fights. His mother was stressed by the frequent complaints from school and eventually left her job to care for him. C's behaviour initially improved in primary two but regressed in primary three. He had difficulty sustaining attention when doing homework both at home and in school. He was also noted to fidget, talk out of turn and interrupt often, and had frequent disruptive behaviour in class. As a result, C had difficulty making friends and working in groups at school and had a strained relationship with his parents at home.

He was eventually diagnosed with ADHD after an evaluation by REACH and seen by a psychiatrist. His parents reported no major concerns during the review and he was prescribed a trial of methylphenidate (Ritalin) 5mg daily.

[a] *REACH (Response, Early intervention and Assessment in Community mental Health) is a community-based mental healthcare service comprising a multidisciplinary team of doctors, psychologists, nurses, medical social workers and occupational therapists who work closely with school counsellors, family physicians and voluntary welfare organisations to help children and adolescents with emotional, social and behavioural issues and disorders.*

First clinic review at Family Medicine Residents' Paediatric Longitudinal Clinic

He was seen by CYH and GLG in the clinic one month later for a review of chest and flank pain. The issue of his ADHD was raised incidentally. His mother admitted to being unconvinced at the diagnosis and disclosed that C had not been taking any Ritalin. She requested a referral to a different psychiatrist for a second opinion in the hope of changing the diagnosis.

We had a long consultation to understand C's history and his mother's ideas and concerns. C's history was not suggestive of anxiety, mood disorders or obsessive-compulsive disorder. We established that C's mother associated ADHD with the label of a problematic child which she had obtained from his teachers. She initially explained that she was against the use of Ritalin due to concerns over its impact on myopia. However, we established that she had underlying fears over the stigma of medication use. These concerns and misconceptions about ADHD were addressed. We also explained that conventional methods to punish C (e.g., scolding) might be inappropriate and advised her to explore other adaptive strategies (e.g., behaviour therapy with school counsellors). We encouraged her not to be overly fixated on Ritalin but to view it as one of many tools to help C. She also took up our advice to have a further conversation with her current psychiatrist rather than seek a second opinion.

C was subsequently reviewed by an ophthalmologist and his mother was reassured by the outcome. He was seen by his psychiatrist a month later and his parents reported an improvement in his behaviour. His grades had also improved. Ritalin was not started after a discussion with the parents.

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Second clinic visit

He was reviewed one month later. During this period, his parents had tried to actively involve C in the management of his condition by explaining the purpose of his doctor visits. They had also engaged his school teachers and counsellors to better understand ADHD and develop a routine for C. With these measures, they reported that C now seemed more mature with less frequent tantrums and improvement in his grades. His parents now felt that there was more support from the school and had overall gained acceptance of the diagnosis.

Third clinic visit

C continued seeing his psychiatrist for ADHD treatment. As his family physicians, we reviewed C three months later to review his progress. During the visit, C's mother highlighted several setbacks. As C was persistently restless and disruptive in class, his teacher encouraged his mother to consider Ritalin once again and she relented. She gave C one dose of Ritalin without him knowing but stopped after feedback from school remained unchanged. C was furious when he eventually found out as he was adamantly against taking Ritalin. However, the mother-son trust had been breached and they required help to repair this relationship.

We were sympathetic to what C and his parents were going through. We explained that while C's mother had his best intention at heart, the trust between mother and son was equally important and encouraged a frank dialogue between them. Once the actions were acknowledged, we encouraged them to set the incident behind them and work together towards his treatment again.

Subsequent follow-up

In the subsequent year of follow-up, C showed good progress in behaviour and grades with no reported setbacks during consults. He was able to engage well with his therapist who reported improvements in his ability to focus and interact with peers. At the advice of his psychiatrist, C started taking Ritalin on an as-needed basis on the day of school examinations. C and his parents were happy with his grades and progress.

GAINING INSIGHT: WHAT ARE THE ISSUES?

This case raised several issues:

1. What allowed C's parents to accept his ADHD diagnosis?
2. What are the diagnostic criteria and treatment of ADHD?
3. What is the role of family physicians in managing ADHD?

STUDY THE MANAGEMENT: HOW DO WE APPLY IN OUR CLINICAL PRACTICE?

1. What allowed C's parents to accept his ADHD diagnosis?

C's parents were initially unable to accept his diagnosis which served as a barrier to treatment. It required a multidisciplinary approach involving his teachers and school counsellors, therapist, psychiatrist and family physicians to gain their trust and address their concerns. The concerns raised by C's parents' included the side effects of medication, social perception of ADHD and possible impairment to success. These concerns are not new. Previous studies on perceptions of ADHD have shown that side effects of stimulant medication, reluctance to accept ADHD as a neuro-psychiatric condition, parental self-blame and trying to fit in with society are common barriers preventing patients and parents from accepting the diagnosis.[2] These concerns were valid and addressed here.

2. What are the diagnostic criteria and treatment of ADHD?

Clinical features of ADHD

ADHD is a common neurodevelopmental disorder with a worldwide prevalence of approximately seven percent.[3] Epidemiological studies on the prevalence of ADHD in Singapore are limited. However, a Singaporean study showed that 4.9 percent of children aged 6 to 12 displayed externalising behavioural problems such as aggression.[4] The exact aetiology of the condition is unclear. The cardinal features of ADHD are inattention, impulsiveness and excessive level of motor activity inappropriate for the age.[5]

Diagnosis

The *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (DSM-V) states the diagnostic criteria of ADHD.[6] It defines nine hyperactive-impulsive and nine inattentive symptoms, of which children up to age 16 must exhibit six or more, in one or two of the domains. In addition, symptoms have to be present before age 12, in two or more settings that substantially interfere with functioning and are not explained by another mental disorder. Diagnosis is based on clinical assessment of behavioural symptoms typically with caregivers who have seen the patient in multiple settings.[7] Standardised behaviour rating scales such as the Vanderbilt ADHD Diagnostic Rating Scale are often used to aid in assessment.[8] Based on this criteria, C had fit the diagnosis of ADHD.

Treatment overview

ADHD treatment should be individualised with a focus on parent and child education, behavioural management, pharmacotherapy and monitoring.[9] It is important that management is based on a multidisciplinary approach involving the parents, teachers, school counsellors and doctors. The primary goal of treatment is to maximise

function, including improvement in relationships, school performance and reducing disruptive behaviours. Treatment should involve a multimodal approach combining behaviour therapy and pharmacological treatment after a discussion with parents on treatment goals and preferences.[10] Behaviour therapy represents a broad set of specific interventions aimed at modifying the child's physical and social environment to improve behaviour.

Stimulant medication such as methylphenidate has been shown to reduce the core symptoms of ADHD and should be considered in the presence of co-morbid disruptive behavioural disorder.[11] These drugs are generally considered safe.[12] Side effects include insomnia, appetite suppression, irritability and abdominal discomfort and are generally responsive to dose adjustments.[13] In rare cases with high doses, some children may experience mood disturbances or hallucinations.[14]

Prognosis

The course of ADHD is variable. Studies have shown that ADHD persists to adolescence in 60 percent to 80 percent of patients.[15] Patients with early diagnosis, strong support and appropriate management tend to have more favourable outcomes.[5]

3. What is the role of family physicians in managing ADHD?

Family physicians often form strong bonds with patients and their families. This was the case with C. The therapeutic relationship allowed us to enable parental acceptance of diagnosis, establish goals of care, provide a support network and guidance to repair a breakdown in trust between mother and son. Beyond this, family physicians also play an important role in collaborations with community partners (e.g. REACH) in the initial evaluation of children with possible ADHD. ADHD should be suspected in children with behavioural or academic problems with symptoms of inattention, impulsiveness and excessive level of motor activity. Appropriate patients should then be promptly referred after screening for common comorbid conditions and differential diagnoses such as oppositional defiant disorder, conduct disorder, anxiety and depression. Family physicians with interest in managing psychiatric conditions may also participate in shared care with psychiatrists for patients with stable conditions. Such patients may benefit from accessible care in the community with a family physician with whom they may share strong bonds while also receiving multidisciplinary support and resources from the hospital psychiatric team. In addition to managing these patients, family physicians can also help monitor ADHD progression in the long run and the development of any behavioural or developmental comorbidities. Interested family physicians may opt to take up the Graduate Diploma in Mental Health programme or partner with hospitals such as the Institute of Mental Health for further training.

DISCUSSION

This case highlights a patient and his parents' journey during his diagnosis and treatment of ADHD. Firstly, it highlights the importance of parental acceptance and how it is the first step of parent training. Parent training has often been cited as an important intervention in addition to pharmacological treatment and behaviour therapy.[16] By accepting his diagnosis and modifying their expectations, C's parents reduced their stress burden and altered their parenting practices.

Secondly, we highlight the importance of shared decision-making. A cohort study involving 148 parents/guardians whose child was recently diagnosed with ADHD showed that parents who were more concerned about academic results tended to favour pharmacologic treatment while those more concerned about behaviour tended to favour behaviour therapy.[17] From our interaction with C's parents, it was clear that they were more focused on improving his behaviour rather than school grades. This likely explained their initial reluctance to start medication. Understanding parental preference could help tailor treatment recommendations.

This study is limited by being a single case report. Although the evidence of the efficacy of parent training in ADHD is robust, more studies on the importance of parental acceptance are recommended.

CONCLUSIONS

Treatment of ADHD is a therapeutic journey involving a child and the parents. Family physicians can help in many ways along this journey. This case highlights how a patient's parents' acceptance of the diagnosis was key to improving his outcomes and the setbacks faced along the way. We also discuss the clinical features, diagnostic criteria and treatment of ADHD and how lessons learned from this case can be applied to family physicians in managing ADHD.

REFERENCES

1. Christiansen L, Beck MM, Bilenberg N, Wienecke J, Astrup A, Lundbye-Jensen J. Effects of Exercise on Cognitive Performance in Children and Adolescents with ADHD: Potential Mechanisms and Evidence-based Recommendations. J Clin Med. 2019 Jun 12;8(6):841. doi: 10.3390/jcm8060841. PMID: 31212854; PMCID: PMC6617109.
2. Ghosh M, Fisher C, Preen DB, Holman CD. "It has to be fixed": a qualitative inquiry into perceived ADHD behaviour among affected individuals and parents in Western Australia. BMC Health Serv Res. 2016 Apr 22;16:141. doi: 10.1186/s12913-016-1399-1. PMID: 27101981; PMCID: PMC4840935.
3. Thomas R, Sanders S, Doust J, Beller E, Glasziou P. Prevalence of attention-deficit/hyperactivity disorder: a systematic review and meta-analysis. Pediatrics. 2015 Apr;135(4):e994-1001. doi: 10.1542/peds.2014-3482. Epub 2015 Mar 2. PMID: 25733754.
4. Woo BS, Ng TP, Fung DS, Chan YH, Lee YP, Koh JB, Cai Y. Emotional and behavioural problems in Singaporean children based on parent, teacher and child reports. Singapore Med J. 2007 Dec;48(12):1100-6. PMID: 18043836.

5. Kulkarni M. Attention deficit hyperactivity disorder. Indian J Pediatr. 2015 Mar;82(3):267-71. doi: 10.1007/s12098-014-1556-7. Epub 2014 Sep 4. PMID: 25186567.
6. American Psychiatric Association. Diagnostic and statistical manual of mental disorders (DSM-5®). American Psychiatric Pub; 2013 May 22.
7. Bied A, Biederman J, Faraone S. Parent-based diagnosis of ADHD is as accurate as a teacher-based diagnosis of ADHD. Postgrad Med. 2017 Apr;129(3):375-381. doi: 10.1080/00325481.2017.1288064. Epub 2017 Mar 8. PMID: 28271921; PMCID: PMC5743217.
8. Becker SP, Langberg JM, Vaughn AJ, Epstein JN. Clinical utility of the Vanderbilt ADHD diagnostic parent rating scale comorbidity screening scales. J Dev Behav Pediatr. 2012 Apr;33(3):221-8. doi: 10.1097/DBP.0b013e318245615b. PMID: 22343479; PMCID: PMC3319856.
9. Brown RT, Amler RW, Freeman WS, Perrin JM, Stein MT, Feldman HM, et al; American Academy of Pediatrics Committee on Quality Improvement; American Academy of Pediatrics Subcommittee on Attention-Deficit/Hyperactivity Disorder. Treatment of attention-deficit/hyperactivity disorder: overview of the evidence. Pediatrics. 2005 Jun;115(6):e749-57. doi: 10.1542/peds.2004-2560. PMID: 15930203.
10. Feldman ME, Charach A, Bélanger SA. ADHD in children and youth: Part 2-Treatment. Paediatr Child Health. 2018 Nov;23(7):462-472. doi: 10.1093/pch/pxy113. Epub 2018 Oct 24. PMID: 30681665; PMCID: PMC6199639.
11. Ministry of Health Singapore. AMS-MOH Clinical Practice Guidelines on Attention Deficit Hyperactivity Disorder [Internet]. Singapore: MOH [updated 2014 Aug, cited 2021 May]. Available from: https://www.moh.gov.sg/hpp/doctors/guidelines/GuidelineDetails/cpgmed_adhd
12. Rappley MD. Clinical practice. Attention deficit-hyperactivity disorder. N Engl J Med. 2005 Jan 13;352(2):165-73. doi: 10.1056/NEJMcp032387. PMID: 15647579.
13. Efron D, Jarman F, Barker M. Side effects of methylphenidate and dexamphetamine in children with attention deficit hyperactivity disorder: a double-blind, crossover trial. Pediatrics. 1997 Oct;100(4):662-6. doi: 10.1542/peds.100.4.662. PMID: 9310521.
14. American Academy of Pediatrics. Subcommittee on Attention-Deficit/Hyperactivity Disorder and Committee on Quality Improvement.. Clinical practice guideline: treatment of the school-aged child with attention-deficit/hyperactivity disorder. Pediatrics. 2001 Oct;108(4):1033-44. doi: 10.1542/peds.108.4.1033. PMID: 11581465.
15. Barkley RA, Fischer M, Edelbrock CS, Smallish L. The adolescent outcome of hyperactive children diagnosed by research criteria: I. An 8-year prospective follow-up study. J Am Acad Child Adolesc Psychiatry. 1990 Jul;29(4):546-57. doi: 10.1097/00004583-199007000-00007. PMID: 2387789.
16. Pelham WE Jr, Fabiano GA. Evidence-based psychosocial treatments for attention-deficit/hyperactivity disorder. J Clin Child Adolesc Psychol. 2008 Jan;37(1):184-214. doi: 10.1080/15374410701818681. PMID: 18444058.
17. Fiks AG, Mayne S, Debartolo E, Power TJ, Guevara JP. Parental preferences and goals regarding ADHD treatment. Pediatrics. 2013 Oct;132(4):692-702. doi: 10.1542/peds.2013-0152. Epub 2013 Sep 2. PMID: 23999959; PMCID: PMC3784291.