

According to the figure 2, among the respondents of having vitamin B deficiency symptoms, 23 (62.16 %) participants are having moderate symptoms of depression and anxiety. 14 (37.83 %) presents having mild symptoms of depression and anxiety.

Conclusion

Almost half of the participants experienced moderate and mild depressive & anxiety conditions. Almost half of the participants lacked intake of foods containing vitamin B. The mental disorders such as anxiety and depression have a statistically significant relationship with vitamin B intake. Therefore, the intake of vitamin B complex needs to be considered to reduce the opportunity of experiencing mental disorders either with food intake or additional supplements.

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PREVALENCE OF PREDOMINANT LEARNING DISABILITIES IN CHILDREN AND ADOLESCENTS WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER IN SRI LANKA

Introduction

ADHD is one of the most common neurodevelopmental disorders of childhood. According to ICD-10, ADHD is a chronic neurobehavioral disorder and often associated with serious areas of impairment and comorbidities over a life span. A mean worldwide prevalence of ADHD has been estimated in children and adolescents (< 18 years) to be 8.8 %. It is commonly first diagnosed in childhood and often lasts into adulthood [1].

The causes and risk factors for ADHD are unknown, but current research shows that genetic factors play an important role. Recent studies have linked genetics with ADHD. Other than genetics, other possible causes and risk factors including: brain injury, exposure to environmental risks (e.g., lead) during pregnancy or at a young age, alcohol and tobacco use during pregnancy, premature delivery and low birth weight. Children with ADHD may show a trouble paying attention, controlling impulsive behaviors or be overly active. A child with ADHD might also, daydream a lot, forget or lose things a lot, squirm or fidget, talks too much,

makes careless mistakes or take unnecessary risks, have hard time resisting temptations, have trouble taking turns and can have problems when getting along with others [2].

According to DSM 5, there can be 3 presentations of ADHD; Predominantly inattentive presentation: if enough symptoms of inattention, but not hyperactivity-impulsivity, were present for past 6 months. Predominantly Hyperactive-Impulsive Presentation: If enough symptoms of hyperactivity-impulsivity, but not inattention, were present for past 6 months. Combined presentation: if enough symptoms of both criteria inattention and hyperactivity-impulsivity, were present for past 6 months. Overall prevalence of ADHD in Sri Lanka is 6.5 % with combined as the commonest subtype [3].

ADHD is not a type of learning disability: however, it does make learning difficult. A popular way to describe learning disability is that the brain is differently wired, therefore, the person receives and process information in a different way. An individual can have both types. Learning disabilities and ADHD often co-exist. Individuals having learning disabilities often have average or above average intelligence and yet there is a mismatch between their achievements and their potential. Learning disability can make writing, reading, spelling and math difficult. They can also affect ability to recall and organize information, to speak and to listen, and can impact short term and long-term memory and timing. Learning disabilities linked with ADHD are dyslexia, dyscalculia, dysgraphia, dyspraxia, auditory processing disorder and visual processing disorder [4].

Dyslexia – learning difficulty specific to reading and related language processing skills [e.g. slow and labor intensive reading, mispronunciation of words, problems retrieving words, difficulty reading aloud problems writing and spelling]. Dyscalculia–learning difficulty specific to the mathematics [e.g. difficulty in identifying different number patterns such as place values, quantity, positive or negative value, carrying/borrowing, difficulty understanding and doing word problems, difficulty sequencing information or events, difficulty using steps in math operations]. Dysgraphia – a learning difficulty specific to the writing[symptoms include sore hand, cramped grip, poor special planning of sentences and margins, frequent erasing, inconsistent letter and word spacing, poor spelling, missing words/ letters [5].

Dyspraxia – A learning difficulty specific to gross &/ fine motor movements[symptoms include difference in speech, perception problems, poor hand and eye coordination, poor posture and balance, clumsiness, fatigue].Auditory processing disorder-is a disorder of hearing system that causes a disruption in a way that an individual’s brain understands things they are hearing. It is not a type of hearing loss, despite showing difficulty with hearing related tasks. Visual processing disorder involves difficulties interpreting and understanding visual information, which also includes spatial relationships, movements, form and direction [5].

Goal

Aims to find the prevalence of learning disabilities in children and adolescents with ADHD in Sri Lanka.

Material and Methods of research

Collecting and analyzing data within a time frame of 01.06.2022–20.03.2023 from 81 patients at the age range 5 to 19 years, those who visited the pediatric psychiatry clinic, Kiribathgoda base hospital, Gampaha district, Sri Lanka. Data was collected by filling a questionnaire, which is: SNAP 4 – teacher and parent rating scale including information form for the teacher, questionnaire for parents, strengths and difficulties questionnaire. Also, case histories of the patients, treatment and therapy plans executed were also taken into consideration.

The results of the research and their discussion

After analyzing the data of 81 patients who were involved in the case study, the following table is drawn representing number of patients obtained for each category of learning disabilities.

Table 1 – Number of patients representing learning disabilities in ADHD

Learning disability(LD)	Gender	No. of patients
No learning disability(No LD)	Male	14
	Female	8
Dyslexia	Male	23
	Female	7
Dysgraphia	Male	14
	Female	8
Dyscalculia	Male	14
	Female	9
Dyspraxia	Male	3
	Female	2

From the data collected from above table following graph is plotted.

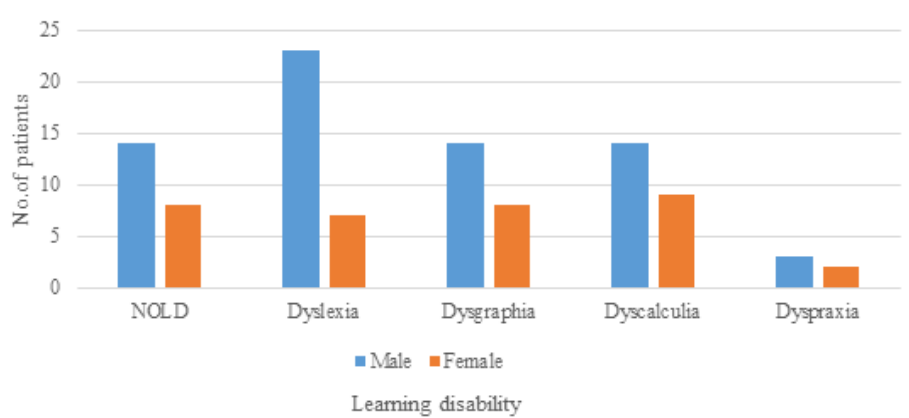


Figure 1–Prevalence of learning disabilities in ADHD children in Sri Lanka

Conclusion

According to the research conducted and data collected, predominant learning disabilities found in patients with ADHD are dyslexia (37.01 %), dysgraphia (27.16 %), dyscalculia (28.40 %) and dyspraxia (6.17 %). Among those dyslexia is the most common disability (37.01 %) and dyspraxia is the least common disability (6.17 %). The most common disability for male patients is dyslexia (41.82 %) and most common disability for the female patients is dyscalculia (34.62 %). The number of patients with at least one learning disability (72.83 %) is more than twice the number of patients having only ADHD (27.16 %). Therefore, it can be concluded that there is a high chance for an ADHD patient to be present with at least one learning disability.

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