

A NARRATIVE REVIEW OF DIETARY BEHAVIOURS, ADHD, AUTISTIC TRAITS  
AND WELL-BEING

Shikhah Almobayed and Andrew P. Smith\*

Centre for Occupational and Health Psychology, School of Psychology, Cardiff University, 70 Park Place, Cardiff CF10 3AT, UK.



\*Corresponding Author: Andrew P. Smith

Centre for Occupational and Health Psychology, School of Psychology, Cardiff University, 70 Park Place, Cardiff CF10 3AT, UK.

Article Received on 20/02/2025

Article Revised on 10/03/2025

Article Accepted on 31/03/2025

## ABSTRACT

**Background:** There have been many studies of ADHD/autistic traits. The present article provides a narrative review of ADHD/autistic traits, diet and well-being. **Methods:** The review starts with descriptions of ADHD, autistic characteristics, health-related behaviours and well-being. Combinations of these factors are then considered. **Results:** This review found that unhealthy foods such as highly processed foods, fast food, sugary beverages, sweets, and salty snacks play a significant role in increasing ADHD and autistic symptoms. Healthy diets such as fruits, vegetables, whole grains, and milk products were found to be associated with reduced ADHD and autism symptoms. It was observed that adherence to appropriate healthy behaviours, such as increased healthy food consumption, reduced junk food consumption, good sleep duration, and exercise, were associated with lower ADHD/autism symptoms. Moreover, there were associations between sleep problems, ADHD, and autism traits. The second part of the review investigated the relationship between ADHD/autistic characteristics and well-being. There was an association between ADHD/autistic traits, reduced positive well-being, physical health, life satisfaction, and quality of life, and increased anxiety and depression among this population. In addition, there was a lack of sleep duration among a sample of people with ADHD. However, the results were inconsistent. Research involving university and secondary students revealed no association between ADHD/autism traits and well-being outcomes when controlling for well-being predictors. However, there were significant associations between ADHD/autistic traits and Strengths and Difficulties outcomes (hyperactivity, conduct problems, and prosocial behaviour). **Conclusions:** The review of associations between ADHD/autism and well-being indicated several studies that predicted well-being. However, no study has examined the relationship between healthy behaviours, ADHD/autistic traits, and well-being among adolescents using a holistic approach. Therefore, further studies are needed on this population.

**KEYWORDS:** Narrative review; ADHD; Autism; Diet; Mental health; Well-being; Strengths and Difficulties; Junk food; Fruit and Vegetables; Sleep.

## INTRODUCTION

The issues of ADHD and autism of different types and classifications have been the focus of increased attention, which indicates that there is a rapid pace of development both in terms of the number of people with ADHD or autism in the world and how to meet their needs. An umbrella review of meta-analyses<sup>[1]</sup>, including 588 studies with 3,277,590 participants from multiple countries, has been conducted. The study found that ADHD is highly prevalent among children and adolescents globally. Precisely, the prevalence of ADHD was estimated at 7.6% in children aged 3–12 years, and the prevalence for adolescents aged 12–18 was slightly lower at 5.6%. In addition, a comprehensive systematic review and meta-analysis<sup>[2]</sup> aimed to determine the global prevalence of autism spectrum disorder and analyse prevalence patterns across different regions and

populations, it was found that the worldwide prevalence of autism was estimated at 0.6% (95% confidence interval: 0.4–1%). The researchers systematically reviewed studies published between 2008 and July 2021, utilising significant databases such as PubMed, Scopus, and Web of Science. A total of 74 studies encompassing 30,212,757 participants were included in the final analysis.

## Conceptualisations of ADHD/Autistic Traits

Differences in behaviour, social interaction, and communication are common autistic traits. In contrast, the symptoms of impulsivity, hyperactivity, and inattention characterise ADHD. These differences can range widely in severity and manifestation, leading to the concepts of autism spectrum disorder or ADHD. Research has shown that numerous people without an

official diagnosis of autism display autistic symptoms in varying degrees.<sup>[3]</sup> This range of characteristics points to a continuum rather than a clear division between people with and without autism.<sup>[4]</sup> The prevailing diagnostic approach for autism is binary, classifying individuals as either having or not having the condition.<sup>[5]</sup> This dichotomous perspective is bolstered by classification analyses identifying discrete categorical structures within the population. However, recent epidemiological findings have begun to challenge this classification viewpoint. These studies suggest that autism-related characteristics do not adhere strictly to conventional diagnostic boundaries; instead, they exist on a continuum that seamlessly extends into subclinical manifestations within the general population, a phenomenon referred to as the broader autism phenotype.<sup>[6-8]</sup> Elucidating the underlying structure of the autism spectrum holds significant implications for enhancing diagnostic methodologies, study design, and developing more accurate prognostic tools.<sup>[6]</sup> At the same time, it is argued that ADHD traits are not specific to people with an ADHD diagnosis; they can also be seen in the general population.<sup>[9]</sup> Autism and ADHD traits are frequently viewed from a medical perspective that focuses on difficulties and limitations. However, recent studies support a broader understanding of autism and ADHD as normal variations of human diversity.<sup>[9, 10, 11]</sup> The continuity between diagnosed autism and autistic traits, or diagnosed ADHD and ADHD traits, in the general population appears to indicate that autism and ADHD are standard forms of human diversity.<sup>[5]</sup>

ADHD is a prevalent neurodevelopmental disorder affecting children and adults. ADHD may impair cognitive, social, and occupational performance.<sup>[12]</sup> Autism spectrum disorder is a neurodevelopmental condition defined by persistent weaknesses in social communication and social interaction, as well as repetitive patterns of behaviour, interests, or activities, and it affects individuals differently.<sup>[13]</sup> Although the specific causes of ADHD and autism are not well comprehended, studies indicate that a combination of genetic, environmental, and neurological elements may play a role in their formation.<sup>[14-16]</sup> A holistic approach considers multiple aspects of a person's well-being, whether physical, mental or emotional and can help individuals lead healthy and happy lives. The strategy focuses on promoting the health and well-being of the individual rather than focusing on an illness or disorder.<sup>[17]</sup> The following section discusses ADHD/autism and well-being in more detail.

#### **ADHD/Autistic Traits and Well-being**

A study by Muñoz-Cantero, Losada Puente, and Almeida<sup>[18]</sup> examined students' quality of life. The study focused on adolescents between 12 and 19 years of age in Spain, utilising a quantitative-descriptive methodology and following a cross-sectional design. The sample consisted of 438 pupils, of whom 145 had special educational needs, including ADHD and autism. The

study examined many dimensions of well-being, such as emotional well-being, relationships with others, and physical well-being, using the Adolescent Student Quality of Life questionnaire. The sample of students with ADHD/autism exhibited lower quality of life in comparison to students who did not have these traits. A decline in physical well-being was observed among students diagnosed with ADHD and autism.<sup>[18]</sup> Similar findings were found in a longitudinal study<sup>[19]</sup>, which investigated the relationship between ADHD and quality of life. The Beck scale was used to measure depression and anxiety as mediating factors. The ADHD self-rating scale (ASRS) was used to assess ADHD symptoms and quality of life. A year after baseline, the WHOQOL-BREF scale was used to measure quality of life. The sample consisted of 1947 adolescents aged 15–17 years. The results showed a decrease in quality of life in adolescents with high ADHD scores. It also confirmed the significant impact of depression and anxiety on the quality of life of those with ADHD.<sup>[19]</sup> Although it was a longitudinal study and used a multivariate approach, it did not include factors that provide a comprehensive well-being profile. However, Ogg, Bateman, Dedrick, and Suldo<sup>[20]</sup> explored the association between ADHD symptoms and life satisfaction in a sample of 183 students between sixth and eighth grade in the United States aged between 11 and 14 years, who completed the Students' Life Satisfaction Scale (SLSS) and ADHD Student Self-Rating Scale. A cross-sectional approach to the bifactor model was used. The students' results showed a negative correlation between inattention and hyperactivity in general and life satisfaction. In contrast, the findings obtained from the teachers indicated an association between life satisfaction and inattention only. However, there were differences between the scales reported by teachers and students. The limitations of this study are that it only examined one dimension of well-being – life satisfaction – and, therefore, does not provide a comprehensive explanation of well-being.<sup>[20]</sup> In addition, the study conducted by Peasgood et al.<sup>[21]</sup> aimed to identify the role of ADHD in the quality of life of children. The sample consisted of 467 adolescents with ADHD in a cross-sectional study. The results showed a decrease in quality of life and happiness as well as fewer sleep hours for children with ADHD compared with children without ADHD. Although these children reported having poor sleep, they did not feel more fatigued. The study provided sufficient samples and variables such as life satisfaction, social aspects, and sleep. However, it was a cross-sectional study in which causality between variables could not be established. In contrast, a cross-sectional study conducted by Okada et al.<sup>[22]</sup> examined the influence of positive and negative affect on a sample of children with ADHD. The researchers gave the PANAS-C to 1094 participants. There was a total of 80 children diagnosed with ADHD alone, 284 children diagnosed with ADHD along with other disorders, and 730 children who did not have ADHD. Children with ADHD experienced higher positive affect compared to the different groups. The

positive effect was more significant in the sample of children with ADHD in combination with other disorders compared to the non-ADHD sample.<sup>[22]</sup> Although the study sample was large, fewer children with ADHD were included compared to the overall sample size. This may lead to limited results and difficulty in generalisation.

### **Health-Related Behaviours and ADHD/Autistic Traits**

#### **Health-Related Behaviours and ADHD**

Research studies have suggested that diet influences individuals with ADHD. Research has mainly examined the connection between nutrition and hyperactivity traits in the past four decades. Park et al.<sup>[23]</sup> aimed to explore a broader range of dietary behaviours among nearly 1,000 children with ADHD and learning disabilities using a cross-sectional design. Nonetheless, based on the observed associations, the authors suggest that it is possible to assume that a well-balanced diet, regular meals, and an adequate intake of dairy and vegetables (as opposed to an unhealthy diet consisting of a high intake of sweet desserts, fried food, and salt) might be responsible for a lower level of behavioural issues and problems with learning and attention. In other words, interventions encouraging healthy eating habits might contribute to fewer issues associated with the disorder.<sup>[23]</sup> Similar findings were obtained by Del-Ponte, Quinte, Cruz, Grellert, and Santos<sup>[24]</sup>, who conducted a systematic literature review and meta-analysis to determine the association between food intake patterns and symptoms of ADHD in children and adolescents. A total of 14 observational studies were included in the investigation. The results of the meta-analysis revealed a negative association between the consumption of healthy food and ADHD symptoms, with an odds ratio (OR) of 0.65 and a 95% confidence interval (CI) of 0.44-0.97. However, the consumption of unhealthy foods was positively associated with a higher probability of experiencing ADHD symptoms, with an OR of 1.41 and a 95% CI of 1.15-1.74.<sup>[24]</sup> Both Park et al.<sup>[23]</sup> and Del-Ponte et al.<sup>[24]</sup> emphasise the need to conduct longitudinal studies to understand the nature of the relationship between diet and ADHD and to consider other variables that influence eating behaviours when designing the analyses.

Children with ADHD often experience sleep disturbances. Maladaptive sleep patterns cause daytime sleepiness and fatigue due to increased sleep deficiency. However, interventions targeting sleep disturbances might contribute to the overall well-being of people with ADHD.<sup>[25]</sup> It is posited that adolescents with ADHD usually have two or three symptoms of insomnia compared to their non-ADHD peers. A large population-based study based on responses from nearly 10,000 adolescents with ADHD supported such findings.<sup>[26]</sup> It was found that people with ADHD experience a range of sleep disturbances, such as shorter duration of sleep,

longer sleep latency, nighttime waking, significant sleep deficiency, and insomnia.

Subsequently, investigations into diet and ADHD have broadened to encompass other health-related behaviours such as eating patterns, physical activity, and sleep.<sup>[15, 27]</sup> Recent evidence suggests that diet and lifestyle changes may help manage ADHD symptoms. A study found that ADHD symptoms were less severe with more exercise and increased fruit and vegetable consumption. The study also found that sugary drinks were connected to more severe ADHD symptoms. Although the study included most HRB components, it was cross-sectional and did not evaluate how HRB affects the well-being of people with ADHD.<sup>[28]</sup>

#### **Health-Related Behaviours and Autism**

Recent developments in the field of autism have focused on various aspects, including determining the impact of health-related behaviours and autism traits. Studies have shown that individuals with autistic symptoms and poor-quality diets, including the consumption of junk food and sugary beverages, have a high prevalence of the condition.<sup>[29]</sup>

Moreover, children and adolescents with autistic spectrum disorder often experience inappropriate sleep patterns. Gunes et al.<sup>[30]</sup> examined the factors associated with sleep issues, including bedtime resistance and nighttime waking. The results indicate that ASD has no substantial impact on sleep difficulties.<sup>[30]</sup> However, McCallum et al.<sup>[9]</sup> established that sleep disruptions are prevalent in all psychiatric disorders and are intensified by the presence of comorbidities.<sup>[9]</sup> In addition, adolescents with disorders are less likely to engage in sufficient amounts of physical activity. They are three times less likely to participate in team or individual sports than typically developing adolescents.<sup>[31]</sup> Children with ASD, particularly girls, are significantly less active compared to adolescents from the non-clinical population, and the levels of activity are much lower while at school and during weekdays.<sup>[32]</sup>

#### **Bidirectional Relationship between Diet and ADHD/Autism**

The previous section discussed how several studies have identified connections between unhealthy dietary habits (characterised by a high intake of processed foods, sugar, and unhealthy fats) and a higher likelihood or occurrence of ADHD/autistic symptoms. In contrast, dietary patterns that are considered healthy and consist of a high intake of fruits and vegetables have been linked to a reduction in the development of ADHD/autistic symptoms. However, the direction of this relationship remains ambiguous. A study conducted in the Netherlands examined the relationship between ADHD symptoms and diet quality in children. The findings revealed that exhibiting more ADHD symptoms at the age of 6 was associated with a reduction in diet quality consumption at the age of 8. However, the study did not find any

evidence to suggest that diet quality at the age of 8 predicted ADHD symptoms at the age of 10.<sup>[33]</sup> Furthermore, it was found that individuals with autism were more likely to consume low-quality diets.<sup>[34]</sup> These findings suggest that the symptoms of ADHD and autism may result in individuals making less healthy eating choices rather than a bad diet being the cause of ADHD/autism. It appears that the observed correlation between ADHD, autism, and low diet quality might be bidirectional, as individuals with ADHD may exhibit poor dietary decision-making due to impulsivity or inadequate self-control while also potentially experiencing an increase in symptoms as a result of the impact of these foods.<sup>[35]</sup> In addition, autistic traits can also lead people to consume a poor-quality diet.<sup>[34]</sup>

### ADHD/Autistic Traits and Holistic Well-being

Some recent studies have been conducted using a holistic approach, with two studies measuring well-being and ADHD/autism traits. The first study was conducted among secondary school students from Wales, including a sample of 155 participants. The participants were asked about their well-being and behavioural outcomes through an online survey using the Well-being Process and Strengths and Difficulties Questionnaire. The results of univariate analyses showed that there were associations between ADHD/autism traits and most well-being and behavioural outcomes. When including established predictors of well-being in the multivariate analyses, most associations between ADHD and autism traits and well-being outcomes were no longer significant. Despite this, some associations remained significant, such as autism traits correlated with conduct problems, hyperactive behaviour, and decreased prosocial behaviour. ADHD traits were only associated with increased hyperactive behaviour.<sup>[36]</sup>

A second cross-sectional study was undertaken to explore the potential relationship between autistic and ADHD traits and university students' well-being and SDQ outcomes. The focus was on understanding how these traits impact well-being outcomes such as anxiety and depression, as well as the SDQ outcomes. Four hundred and thirty students from Cardiff University completed an online survey. The results of the study were similar to those of the previous research. In the univariate analysis, ADHD and autism traits were significantly correlated with most of the well-being and SDQ outcomes. Regression analyses showed that the effects of autistic and ADHD traits were mainly restricted to SDQ outcomes but not well-being outcomes. For example, there were positive associations between ADHD traits, hyperactivity, and conduct problems. In addition, there were positive associations between autistic traits, hyperactive behaviour, and peer problems. A combined-effects approach was used to measure the effect of ADHD, autism traits, anxiety, and depression in a single factor. The combined factor appeared to be associated with most well-being and SDQ outcomes even after controlling for the established well-being

predictors. There were associations between the combined factor score and positive and negative well-being, physical health, conduct, hyperactive behaviour, and peer problems. Prosocial behaviour did not significantly correlate with the combined score.<sup>[37]</sup> Although both studies<sup>[36, 37]</sup> used a holistic approach to assess well-being outcomes, they did not include HRB variables to evaluate their impact on ADHD/autism traits and well-being outcomes.

### DISCUSSION

The current review provided literature on two topics. The first was the association between ADHD/autistic traits and health-related behaviours. This review found that unhealthy foods such as highly processed foods, fast food, sugary beverages, sweets, and salty snacks play a significant role in increasing ADHD and autistic symptoms. Healthy diets such as fruits, vegetables, whole grains, and milk products were found to be associated with reduced ADHD and autism symptoms. It was observed that adherence to appropriate healthy behaviours, such as increased healthy food consumption, reduced junk food consumption, good sleep duration, and exercise, was associated with lower ADHD/autism symptoms. Moreover, there were associations between sleep problems, ADHD, and autism traits. However, the results were inconsistent; no association was found between sleep problems and autism traits.

The second part of the review investigated the relationship between ADHD/autistic traits and well-being. There was an association between ADHD/autistic traits, reduced positive well-being, physical health, life satisfaction, and quality of life, and increased anxiety and depression among this population. In addition, there was a lack of sleep duration among a sample of people with ADHD. However, the results were inconsistent. Research involving university and secondary students revealed no association between ADHD/autism traits and well-being outcomes when controlling for well-being predictors. However, there were significant associations between ADHD/autistic traits and SDQ outcomes (hyperactivity, conduct problems, and prosocial behaviour).

### CONCLUSION

The review of associations between ADHD/autism and well-being indicated several studies that predicted well-being. However, no study has examined the relationship between healthy behaviours, ADHD/autistic traits, and well-being among adolescents using a holistic approach. Therefore, further studies are needed on this population.

### REFERENCES

1. Ayano G, Demelash S, Gizachew Y, Tsegay L, Alati R. The global prevalence of attention deficit hyperactivity disorder in children and adolescents: An umbrella review of meta-analyses. *Journal of Affective Disorders*, 2023; 339: 860-866.



2. Salari N, Rasoulpoor S, Rasoulpoor S, Shohaimi S, Jafarpour S, Abdoli N., Mohammadi M. The global prevalence of autism spectrum disorder: A comprehensive systematic review and meta-analysis. *Italian Journal of Pediatrics*, 2022; 48(1): 112.
3. Baron-Cohen S, Scott FJ, Allison C, Williams J, Bolton P, Matthews FE, Brayne C. Prevalence of autism spectrum conditions: UK school-based population study. *British Journal of Psychiatry*, 2009; 194(6): 500-509.
4. Sasson NJ, Lam KS, Childress D, Parlier M, Daniels JL, Piven J. The broad autism phenotype questionnaire: Prevalence and diagnostic classification. *Autism Research*, 2013; 6(2): 134-143.
5. Greven CU, Buitelaar JK, Salum GA. From positive psychology to psychopathology: The continuum of attention-deficit hyperactivity disorder. *Journal of Child Psychology and Psychiatry*, 2018; 59(3): 203-212.
6. Abu-Akel A, Allison C, Baron-Cohen S, Heinke, D. The distribution of autistic traits across the autism spectrum: Evidence for discontinuous dimensional subpopulations underlying the autism continuum. *Molecular Autism*, 2019; 10(1): 24.
7. Austin, EJ. Personality correlates of the broader autism phenotype as assessed by the Autism Spectrum Quotient (AQ). *Personality and Individual Differences*, 2005; 38(2): 451-460.
8. Lunia D, Smith AP. Exploring the associations between autistic traits, sleep quality and well-being in university students: A narrative review. *Healthcare*, 2024; 12(20): 2027.
9. McLennan JD. Understanding attention deficit hyperactivity disorder as a continuum. *Canadian Family Physician*, 2016; 62(12): 979-982.
10. Galvin J, Richards G. The indirect effect of self-compassion in the association between autistic traits and anxiety/depression: A cross-sectional study in autistic and non-autistic adults. *Autism*, 2023; 27(5): 1256-1270.
11. Ruzich E, Allison C, Smith P, Watson P, Auyeung B, Ring H, Baron-Cohen S. Measuring autistic traits in the general population: A systematic review of the Autism-Spectrum Quotient (AQ) in a nonclinical population sample of 6,900 typical adult males and females. *Molecular Autism*, 2015; 6(1): 2.
12. Alexander L, Farrelly, N. Attending to adult ADHD: A review of the neurobiology behind adult ADHD. *Irish Journal of Psychological Medicine*, 2017; 35: 237-244.
13. Alnasser, YKA. Autism spectrum disorder: A comprehensive review of the literature. *Scholars Academic Journal of Biosciences*, 2023.
14. Loewen O, Maximova K, Ekwaru JP, Asbridge M, Ohinmaa A, Veugelers P. Adherence to lifestyle recommendations and ADHD: A population-based study of children aged 10–11. *Psychosomatic Medicine*, 2020; 82: 1.
15. Pingault JB, Viding E, Galéra C, Greven CU, Zheng Y, Plomin R, Rijdsdijk F. Genetic and environmental influences on the developmental course of attention-deficit/hyperactivity disorder symptoms from childhood to adolescence. *JAMA Psychiatry*, 2015; 72(7): 651-658.
16. Szatmari P. The causes of autism spectrum disorders. *BMJ*, 2003; 326(7382): 173-174.
17. Frederickson N, Cline, T. *Special Educational Needs, Inclusion and Diversity*. McGraw-Hill Education, 2015.
18. Muñoz-Cantero J.-M, Losada Puente L, Almeida L. Quality of life, adolescence, and inclusive schools: Comparing regular and special needs students. *Bordón. Revista de Pedagogía*, 2016; 69: 139.
19. Pan PY, Yeh CB. Impact of depressive/anxiety symptoms on the quality of life of adolescents with ADHD: A community-based 1-year prospective follow-up study. *European Child and Adolescent Psychiatry*, 2017; 26(6): 659-667.
20. Ogg JA, Bateman L, Dedrick RF, Suldo SM. The relationship between life satisfaction and ADHD symptoms in middle school students: Using a bifactor model. *Journal of Attention Disorders*, 2016; 20(5): 390-399.
21. Peasgood T, Bhardwaj A, Biggs K, Brazier JE, Coghill D, Cooper CL, Hodgkins P. The impact of ADHD on the health and well-being of ADHD children and their siblings. *European Child & Adolescent Psychiatry*, 2016; 25(11): 1217-1231.
22. Okada I, Mueller CW, Nakamura BJ. Positive and negative affect in clinic-referred youth with ADHD. *Journal of Attention Disorders*, 2016; 20(1): 53-62.
23. Park S, Cho SC, Hong YC, Oh SY, Kim JW, Shin MS, Bhang SY. Association between dietary behaviours and attention-deficit/hyperactivity disorder and learning disabilities in school-aged children. *Psychiatry Research*, 2012; 198(3): 468-476.
24. Del-Ponte B, Quinte GC, Cruz S, Grellert M, Santos IS. Dietary patterns and attention-deficit/hyperactivity disorder (ADHD): A systematic review and meta-analysis. *Journal of Affective Disorders*, 2019; 252: 160-173.
25. Lycett K, Sciberras E, Hiscock H, Mensah FK. Sleep problem trajectories and wellbeing in children with attention-deficit hyperactivity disorder: A prospective cohort study. *Journal of Developmental and Behavioral Pediatrics*, 2016; 37(5): 405-414.
26. Hysing M, Lundervold AJ, Posserud MB, Sivertsen B. Association between sleep problems and symptoms of attention deficit hyperactivity disorder in adolescence: Results from a large population-based study. *Behavioral Sleep Medicine*, 2016; 14(5): 550-564.
27. Pelsser LM, Frankena K, Toorman J, Rodrigues Pereira R. Diet and ADHD, reviewing the evidence: A systematic review of meta-analyses of double-blind placebo-controlled trials evaluating the efficacy of diet interventions on the behavior of

- children with ADHD. PLoS ONE, 2017; 12(1): e0169277.
28. Van Egmond-Fröhlich AW, Weghuber D, de Zwaan M. Association of symptoms of attention-deficit/hyperactivity disorder with physical activity, media time, and food intake in children and adolescents. PLoS ONE, 2012; 7(11): e49781.
  29. Panossian C, Lyons-Wall P, Whitehouse A, Oddy WH, Lo J, Scott J, O'Sullivan, TA. Young adults with high autistic-like traits displayed lower food variety and diet quality in childhood. Journal of Autism and Developmental Disorders, 2021; 51: 685-696.
  30. Gunes S, Ekinici O, Feyzioglu A, Ekinici N, Kalinlis M. Sleep problems in children with autism spectrum disorder: Clinical correlates and the impact of attention deficit hyperactivity disorder. Neuropsychiatric Disease and Treatment, 2019; 15: 763-771.
  31. Mangerud WL, Bjerkeset O, Lydersen S, Indredavik MS. Physical activity in adolescents with psychiatric disorders and the general population. Child and Adolescent Psychiatry and Mental Health, 2014; 8.
  32. Memari AH, Ghaheri B, Ziaee V, Kordi R, Hafizi S, Moshayedi P. Physical activity in children and adolescents with autism assessed by triaxial accelerometry. Pediatric Obesity, 2013; 8(2): 150-158.
  33. Mian A, Jansen PW, Nguyen AN, Bowling A, Renders CM, Voortman T. Children's attention-deficit/hyperactivity disorder symptoms predict lower diet quality but not vice versa: Results from bidirectional analyses in a population-based cohort. Journal of Nutrition, 2019; 14(4): 642-648.
  34. Harris HA, Mou Y, Dieleman GC, Voortman T, Jansen PW. Child autistic traits, food selectivity, and diet quality: A population-based study. The Journal of Nutrition, 2022; 152(3): 856-862.
  35. Lange KW, Nakamura Y, Lange KM, Zhao, H. Tea and depression. Food Science and Human Wellness, 2022; 11(3): 476-482. doi:<https://doi.org/10.1016/j.fshw.2021.12.032>
  36. Smith A, Garcha J, James A. The associations between autistic and ADHD traits and wellbeing of secondary school students in South Wales. Journal of Education, Society and Behavioural Science, 2023; 36(7): 55-69.
  37. Garcha J, Smith AP. Associations between Autistic and ADHD Traits and the Well-Being and Mental Health of University Students. Healthcare, 2023; 12(1). doi:10.3390/healthcare12010014