RCMOS – Revista Científica Multidisciplinar O Saber. ISSN: 2675-9128. São Paulo-SP.

**Ano VII, v.1 2026 | submissão: 28/10/2026 | aceito: 04/11/2026 | publicação: 09/11/2026**

# Food selectivity in children with autism spectrum disorder and its repercussions on nutritional status: implications for public health: a literature review

*Seletividade alimentar em crianças com transtorno do espectro autista e suas repercussões no estado nutricional: implicações para a saúde coletiva: uma revisão de literatura*

*Selectividad alimentaria en niños con trastorno del espectro autista y sus repercusiones en el estado nutricional: implicaciones para la salud colectiva: una revisión de la literatura*

Nicole White Silva da Rocha
Undergraduate student in Nutrition – Faculdade AGES, Jacobina/BA
Supervisor: Prof. MSc. Juliana Malinovski
Co-supervisor: Káren Arielle Carvalho Barreto

**Abstract**

Introduction: Autism Spectrum Disorder (ASD) is a neurodevelopmental condition characterized by impairments in communication, social interaction, and restricted and repetitive behavioral patterns. Among the challenges frequently observed in this population, food selectivity stands out, characterized by food refusal, a limited food repertoire, and preference for specific characteristics such as texture, color, taste, or presentation. This behavior may reduce dietary diversity and contribute to nutritional inadequacies that negatively affect children's growth, development, and quality of life. Objective: To analyze the impacts of food selectivity on the nutritional status of children with Autism Spectrum Disorder during middle childhood and to discuss the role of nutritionists in managing this condition within the context of public health. Methodology: This study is an integrative literature review with a descriptive-exploratory approach. The bibliographic search was conducted in the PubMed, SciELO, and MDPI (Nutrients Journal) databases using the descriptors “autism,” “food selectivity,” and “public health,” combined with the Boolean operator AND. Primary studies published between 2022 and 2026 in Portuguese and English that addressed food selectivity in children with ASD and its relationship with nutritional status were included. The selection process involved the analysis of titles, abstracts, and full-text reading of eligible articles. Results and Discussion: The analyzed studies revealed a high prevalence of food selectivity among children with ASD, associated with low dietary variety, sensory alterations, and gastrointestinal symptoms. Findings demonstrated a relationship between this eating behavior and nutritional inadequacies, including vitamin and mineral deficiencies, as well as an increased risk of overweight and obesity. Food restriction was found to potentially compromise growth, child development, and quality of life. The results highlight the importance of early nutritional monitoring, continuous dietary surveillance, and multidisciplinary care with active family involvement. Methodological limitations were also identified, particularly regarding sample heterogeneity and the scarcity of studies focused on the role of nutritionists in public health settings. Conclusion: Food selectivity in children with ASD is frequently associated with significant nutritional alterations, requiring individualized nutritional follow-up and early interventions. There is a need to expand research and strengthen health promotion strategies aimed at improving nutritional status and quality of life in this population.

**Keywords:** Autism Spectrum Disorder; Food Selectivity; Nutritional Status; Public Health; Child Nutrition.

**Resumo**

Introdução: O Transtorno do Espectro Autista (TEA) é uma condição do neurodesenvolvimento caracterizada por alterações na comunicação, interação social e padrões comportamentais restritos e repetitivos. Entre os desafios frequentemente observados nessa população, destaca-se a seletividade alimentar, caracterizada pela recusa de alimentos, repertório alimentar limitado

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e preferência por características específicas, como textura, cor, sabor ou apresentação. Esse comportamento pode reduzir a diversidade da dieta e favorecer inadequações nutricionais que impactam o crescimento, o desenvolvimento e a qualidade de vida das crianças. Objetivo: Analisar os impactos da seletividade alimentar no estado nutricional de crianças com Transtorno do Espectro Autista na segunda infância e discutir a atuação do nutricionista no manejo dessa condição no contexto da saúde coletiva. Metodologia: Trata-se de uma revisão integrativa da literatura, de caráter descritivo-exploratório. A busca bibliográfica foi realizada nas bases de dados PubMed, SciELO e MDPI (Nutrients Journal), utilizando os descritores “autism”, “food selectivity” e “public health”, combinados pelo operador booleano AND. Foram incluídos estudos primários publicados entre 2022 e 2026, nos idiomas português e inglês, que abordassem a seletividade alimentar em crianças com TEA e sua relação com o estado nutricional. A seleção dos estudos ocorreu por meio da análise dos títulos, resumos e leitura completa dos artigos elegíveis. Resultados e Discussão: Os estudos analisados evidenciaram elevada prevalência de seletividade alimentar em crianças com TEA, associada à baixa variedade dietética, alterações sensoriais e sintomas gastrointestinais. Os achados demonstraram relação entre esse comportamento alimentar e inadequações nutricionais, incluindo deficiências de vitaminas e minerais, além de maior risco de sobrepeso e obesidade. Observou-se que a restrição alimentar pode comprometer o crescimento, o desenvolvimento infantil e a qualidade de vida. Os resultados reforçam a importância do acompanhamento nutricional precoce, da vigilância alimentar contínua e da atuação multiprofissional, com participação ativa da família. Também foram identificadas limitações metodológicas nos estudos, especialmente relacionadas à heterogeneidade das amostras e à escassez de pesquisas voltadas à atuação do nutricionista na saúde coletiva. Conclusão: A seletividade alimentar em crianças com TEA está frequentemente associada a alterações nutricionais relevantes, exigindo acompanhamento nutricional individualizado e intervenções precoces. Destaca-se a necessidade de ampliar as pesquisas e fortalecer estratégias de promoção da saúde que contribuam para a melhoria do estado nutricional e da qualidade de vida dessa população.
**Palavras-chave:** Transtorno Do Espectro Autista; Seletividade Alimentar; Estado Nutricional; Saúde Coletiva; Nutrição Infantil.

**Resumen**
Introducción: El trastorno del espectro autista (TEA) es una condición del neurodesarrollo caracterizada por alteraciones en la comunicación, la interacción social y patrones conductuales restringidos y repetitivos. Entre los desafíos que se observan con frecuencia en esta población destaca la selectividad alimentaria, caracterizada por el rechazo de alimentos, un repertorio alimentario limitado y la preferencia por características específicas como textura, color, sabor o presentación. Esta conducta puede reducir la diversidad de la dieta y favorecer inadecuaciones nutricionales que afectan al crecimiento, el desarrollo y la calidad de vida de los niños. Objetivo: Analizar los impactos de la selectividad alimentaria en el estado nutricional de niños con trastorno del espectro autista en la segunda infancia y discutir la actuación del nutricionista en el manejo de esta condición en el contexto de la salud colectiva. Metodología: Se trata de una revisión integradora de la literatura, de carácter descriptivo y exploratorio. La búsqueda bibliográfica se realizó en las bases de datos PubMed, SciELO y MDPI (Nutrients Journal), utilizando los descriptores “autism”, “food selectivity” y “public health”, combinados con el operador booleano AND. Se incluyeron estudios primarios publicados entre 2022 y 2026, en portugués e inglés, que abordaran la selectividad alimentaria en niños con TEA y su relación con el estado nutricional. La selección de los estudios se realizó mediante el análisis de títulos, resúmenes y la lectura completa de los artículos elegibles. Resultados y discusión: Los estudios analizados evidenciaron una elevada prevalencia de selectividad alimentaria en niños con TEA, asociada a una baja variedad dietética, alteraciones sensoriales y síntomas gastrointestinales.

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Los hallazgos demostraron una relación entre esta conducta alimentaria y las inadecuaciones nutricionales, incluidas deficiencias de vitaminas y minerales y un mayor riesgo de sobrepeso y obesidad. Se observó que la restricción alimentaria puede comprometer el crecimiento, el desarrollo infantil y la calidad de vida. Los resultados refuerzan la importancia del seguimiento nutricional temprano, la vigilancia alimentaria continua y la actuación multiprofesional con participación activa de la familia. También se identificaron limitaciones metodológicas en los estudios, especialmente relacionadas con la heterogeneidad de las muestras y la escasez de investigaciones centradas en la actuación del nutricionista en salud colectiva. Conclusión: La selectividad alimentaria en niños con TEA se asocia frecuentemente a alteraciones nutricionales relevantes, lo que exige un seguimiento nutricional individualizado e intervenciones tempranas. Se destaca la necesidad de ampliar las investigaciones y fortalecer estrategias de promoción de la salud que contribuyan a mejorar el estado nutricional y la calidad de vida de esta población.
**Palabras clave:** Trastorno del espectro autista; Selectividad alimentaria; Estado nutricional; Salud colectiva; Nutrición infantil.

## Introduction

According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5-TR, 2013), Autism Spectrum Disorder (ASD) is defined as a neurodevelopmental condition characterized by atypical development and deficits that affect functioning in various areas of life. These difficulties manifest in communication, language, and repetitive and stereotyped behavioral patterns associated with behavioral rigidity, which may be apparent from early childhood and affect these individuals' daily routines (Casati, B. et al., 2024).

This disorder can be specified according to severity and the support required, which describe the degree of impairment of the individual with ASD (American Psychiatric Association, 2014). In addition, its signs and symptoms can be screened by families and healthcare professionals from birth, during the initial period of child development (American Psychiatric Association, 2014). Although the origins of ASD have not yet been fully clarified, scientific evidence indicates a strong influence of genetic and environmental factors on its manifestation (Moraes, L. et al., 2021).

The prevalence of ASD has increased significantly. In 2017, an estimated 1 in 160 children were diagnosed with ASD, according to World Health Organization (WHO) data. In its most recent analysis, published in 2023, this figure increased to 1 in 100 children (WORLD HEALTH ORGANIZATION, 2023). In Brazil, the 2022 Census identified 2.4 million people diagnosed with ASD, corresponding to 1.2% of the Brazilian population. Prevalence was higher among males (1.5%) than females (0.9%) (IBGE, 2022). Among age groups, the highest prevalence was observed in children aged 5 to 9 years (2.6%) (IBGE, 2022). However, data

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remain very limited, since collecting information on autism in demographic censuses was not mandatory before 2019 (Alves, B. et al., 2023).

Middle childhood, as defined in this study, generally encompasses the age range from 2 to 10 years, covering the preschool and school-age stages, a period marked by intense physical, cognitive, emotional, and social development (Rossi; Poltroniere, 2024). At this stage of life, eating habits become established, while nutritional requirements for adequate growth and development increase (Raymond; Morrow, 2022). In children with Autism Spectrum Disorder, this stage deserves particular attention, as sensory alterations, behavioral rigidity, and feeding difficulties tend to directly affect the formation of eating behaviors and nutritional status, potentially influencing health and quality of life throughout development (Rodrigues, C. et al., 2025).

A balanced, healthy diet containing all essential nutrients and adequate energy is indispensable for a child's healthy growth and development. During this stage, significant social, cognitive, and emotional growth occurs, and deficiencies in specific nutrients may negatively affect behavior and growth (Raymond; Morrow, 2022). Within this context, food selectivity is frequently observed during the development of children with ASD and may have relevant effects on their health, nutritional status, and quality of life (Santos, M. et al., 2024).

Food selectivity is structured around three distinct pillars: food refusal, a restricted food repertoire, and specific food intake (Rodrigues, C. et al., 2025). This triad is attributed to atypical mealtime behaviors, most often caused by sensory discomfort, which lead to aversion to or preference for particular tastes, textures, smells, colors, and consistencies, as well as other specific characteristics, such as the child's impressions, packaging or a particular brand, and food presentation, all associated with resistance to introducing new foods (Rodrigues, C. et al., 2025).

Thus, these factors directly influence food choices among children with ASD, reinforcing and perpetuating food selectivity, since resistance to introducing new foods, combined with sensory alterations and behavioral rigidity, contributes to a limited dietary pattern (Moraes, L. et al., 2021). In this context, food selectivity in children with ASD entails a series of problems affecting nutritional status, such as nutrient deficiencies resulting from low dietary variety, which contribute to growth delays and increase the likelihood of childhood overweight and obesity compared with neurotypical children (Metwally, A. et al., 2024).

The restrictive dietary patterns observed may therefore affect nutritional status, making this a relevant aspect to consider. Nutritional status is an individual's physiological condition

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or state resulting from the balance between nutrient intake and the body's specific nutritional requirements (Raymond; Morrow, 2022). This state is determined by factors such as the quantity of nutrients in the diet, their bioavailability according to their source, and the digestive system's ability to digest and absorb what is consumed (Raymond; Morrow, 2022).

This shows that food selectivity in children with ASD poses a challenge to maintaining nutritional status, as it produces an imbalance through limited dietary diversity, including preference for specific food groups and refusal of others that provide essential nutrients. This leads to vitamin and mineral deficiencies that may negatively affect healthy child development (Rodrigues, C. et al., 2025).

The possible problems faced by children with ASD, such as overweight, obesity, and nutritional deficiencies caused by selective and restricted eating, are highly relevant public health issues. Public health is an interdisciplinary field that studies and addresses population health problems, considering biological, social, economic, cultural, and environmental factors (Brasil, 2018). In Brazil, it seeks to propose health promotion and disease and harm prevention strategies, focusing on reducing individual and collective risks and vulnerabilities, with actions that support comprehensive care and respect each person's individuality (Brasil, 2018).

In the context of ASD, this perspective is essential given the complexity of the care required. Nutritionists therefore play a vital role in managing food selectivity in children with ASD, being responsible for promoting positive dietary changes and developing healthy eating habits (Mendes, A. et al., 2024). This change occurs through an appropriate clinical diagnosis, identification of restrictive dietary patterns, and implementation of strategies adapted to the child's needs in collaboration with their family (Mendes, A. et al., 2024).

However, although appropriate intervention for food selectivity in children with ASD is a relevant topic, there is a shortage of studies addressing it as a public health issue, highlighting the importance of further research on this problem (Metwally, A. et al., 2024).

Therefore, based on the scientific literature, this study aims to analyze the repercussions of food selectivity on the nutritional status of children with Autism Spectrum Disorder (ASD) during the preschool and school-age stages (middle childhood) and discuss the role of nutritionists in managing this condition in the public health context.

## Methodology

This study consists of an integrative literature review with a descriptive and exploratory approach. It aims to answer the following guiding question: "What is the relationship between

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food selectivity and nutritional status in preschool and school-age children (middle childhood) with Autism Spectrum Disorder, and what are the implications for public health?"

The bibliographic search was conducted in the National Library of Medicine (PubMed), Scientific Electronic Library Online (SciELO), and MDPI (Nutrients Journal) databases. English descriptors were selected according to the study topic: "autism," "food selectivity," and "public health." The terms were combined using the Boolean operator AND and applied to the databases to identify studies related to food selectivity in Autism Spectrum Disorder within the public health context.

Primary studies published between 2022 and 2026, available in Portuguese or English, addressing food selectivity in children and adolescents with Autism Spectrum Disorder, its relationship with nutritional status, and its implications for public health were included, provided that they encompassed individuals in the age range corresponding to middle childhood, the focus of this research. Duplicate studies, undergraduate theses, literature reviews, editorials, opinion articles, dissertations, and conference abstracts were excluded, as were studies unrelated to the proposed topic, such as those that did not involve children, did not address Autism Spectrum Disorder, or did not consider aspects related to food selectivity in the public health context.

Data were obtained through successive stages. Initially, studies were searched in the specified databases using the previously established descriptors. Titles and abstracts were then analyzed to select articles meeting the inclusion criteria. Following this screening stage, full texts were read to identify the main evidence concerning food selectivity in children with Autism Spectrum Disorder, its relationship with nutritional status, and its implications for public health.

Because of the lack of detailed research on nutritionists' role in managing food selectivity in children with ASD, specifically in the public health context, the scope of the investigation was expanded to include studies addressing other healthcare professionals working with individuals affected by these conditions, provided that they included aspects related to food selectivity, nutritional status, or interdisciplinary collaboration in their care. Articles conducted in public health settings, such as public schools and Primary Health Care (PHC) units, as well as public clinics, public health institutions, and social movements, were also considered.

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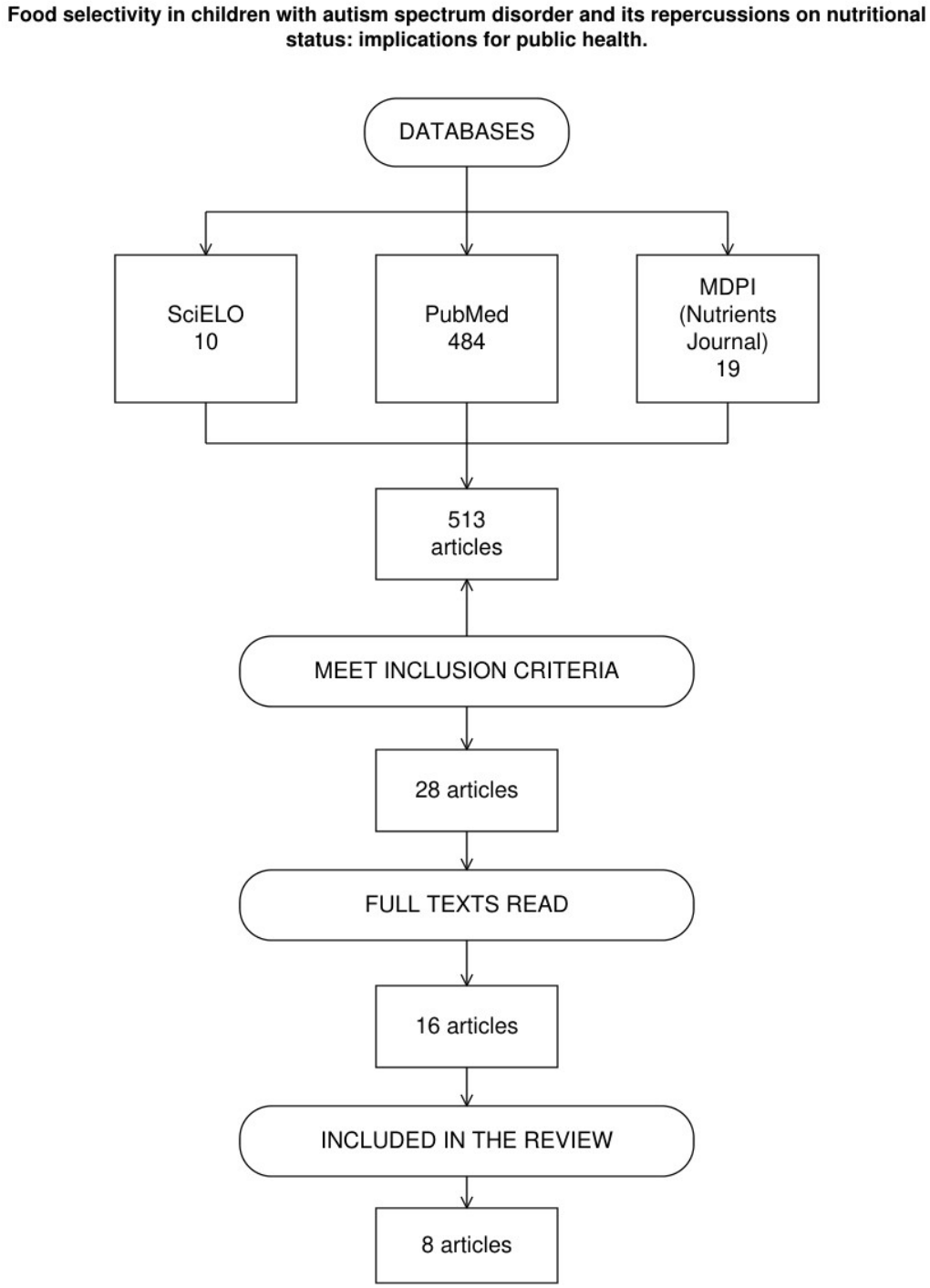
**Figure 1 – Flowchart of article selection for this research**




Source: developed by the authors, 2026.

Table 1 below brings together the most significant results from each scientific article selected for the research, along with authors, study type, publication year, study location, sample, objectives, methodology, and results. The eight articles are primary studies published in national and international journals and conducted in Brazil, Egypt, Türkiye, Poland, Uruguay, the United States, and Italy, reflecting the geographic diversity of the scientific

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production included in this article. Of the selected articles, seven were published in English and one in Portuguese.

**Table 1 – Summary of articles analyzed for the review**

| # | Author, year, location | Design, study type and N | Study objectives | Methodology | Main findings |
|---|---|---|---|---|---|
| 1 | Alves, B. et al.<br>2023<br>Macaé, Rio de Janeiro, Brazil | Observational, cross-sectional, quantitative study.<br>N = 92 children with ASD (age: 2 years to 9 years, 11 months, and 29 days). | To investigate the relationship between sociodemographic profile and food selectivity in children with ASD enrolled in a social movement in the municipality of Macaé, Rio de Janeiro. | A virtual semistructured form administered through Google Forms to identify the association between food selectivity and the children's sociodemographic profile. | Most children exhibit food selectivity, particularly regarding cereals, legumes, meat, and the texture of some foods, due to sensory processing difficulties. This behavior may trigger gastrointestinal symptoms, excess weight, and nutrient deficiencies that affect healthy development. |
| 2 | Şahinoğlu, Y.;<br>Bakırhan, H.<br>2025<br>Türkiye | Observational, cross-sectional, comparative study.<br>N = 100 children (50 with ASD and 50 controls; age: 3–11 years). | To examine the nutritional status and quality of life of children with ASD using a holistic approach. | A questionnaire developed by the researchers and answered by parents assessed gastrointestinal problems, nutritional problems, number of bowel movements, and stool consistency. Diet quality was also assessed. | The study revealed that children with ASD have a higher occurrence of nutritional and gastrointestinal alterations, as well as lower quality of life and poorer dietary patterns than neurotypical children. |
| 3 | Mirizzi, P. et al.<br>2025<br>Italy | Cross-sectional, comparative, questionnaire-based study.<br>N = 408 children (33% with ASD and 67% typically developing; age: 3 years to 12 years and 11 months). | To compare higher-risk subgroups of children through a joint analysis of factors such as food selectivity, dietary patterns, BMI, and sensory processing. | Using a cross-sectional design, questionnaires were administered to participants, comparing children with ASD with typically developing children. | Feeding problems in children with ASD are multifactorial, and selective eating results from sensory hypersensitivity, gastrointestinal symptoms, and inappropriate parental feeding practices. A lack of dietary variety may therefore increase the likelihood of nutritional deficiencies. |

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| # | Author, year, location | Design, study type and N | Study objectives | Methodology | Main findings |
|---|---|---|---|---|---|
| 4 | Metwally, A. et al.<br>2024<br>Egypt | Nationwide, institution-based, cross-sectional, comparative study.<br>N = 509 children (285 with ASD and 224 typically developing peers; age: 3–12 years). | To relate nutritional adequacy and growth patterns in children with ASD compared with their healthy developing peers. | Children were selected at Maternal and Child Health (MCH) and Primary Health Care (PHC) units. Questionnaires, anthropometry, and symptom assessment were conducted. | The study showed that children with ASD consume more energy-dense foods and exhibit selective eating regarding dairy products, meat, fruit, and vegetables. These conditions imply a higher prevalence of nutritional deficiencies, poorer nutritional status, and a greater likelihood of developing overweight and obesity compared with their peers. |
| 5 | Grot, M. et al.<br>2024<br>Poland | Cross-sectional, quantitative and qualitative study.<br>N = 141 children and adolescents (105 with ASD and 36 with other disorders; age: 1–17 years). | To analyze the intake of specific food groups in children and adolescents with autism. | A customized questionnaire collected data on dietary patterns and assessed participants' diet quality. | The qualitative analysis of eating habits showed food selectivity, aversion, and altered eating behavior, particularly in individuals with ASD. This may directly affect this group's health and neurodevelopment, leading to deficiencies in some essential nutrients. |
| 6 | Cerchiari, A. et al.<br>2023<br>Italy | Interventional pilot study.<br>N = 11 children with ASD (age: 3–8 years). | To explore the effectiveness of Global Intensive Feeding Therapy (GIFT) on feeding and swallowing skills in children with ASD, aiming to encourage food desensitization and broaden their food repertoire. | An approach was implemented at a public health institution, divided into 30 sessions over 2 weeks, three times daily, over 6 months. Scales were used to quantify GIFT effectiveness. | After implementing Global Intensive Feeding Therapy (GIFT), improvements were observed in food acceptance, appropriate chewing, and behavioral aspects in children with ASD who exhibited food selectivity and chewing difficulties. |

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| # | Author, year, location | Design, study type and N | Study objectives | Methodology | Main findings |
|---|---|---|---|---|---|
| 7 | Dubourdieu, P.; Guerendiain, M. 2022 Uruguay | Descriptive, cross-sectional, comparative study. N = 65 children (35 with ASD and 30 typically developing; age: 3–12 years). | To investigate food intake, nutritional status, and sensory profile in children with and without ASD. | The Short Sensory Profile and food frequency surveys were administered. | The ASD group showed greater sensory sensitivity than the typically developing group; however, there was no significant difference in nutritional status between the two groups. According to the article, the results obtained may be related to the causes of nutritional deficiencies presented by individuals with ASD. However, the article emphasized the importance of further research to investigate the relationship between food intake, nutritional status, and sensory sensitivity. |
| 8 | Wenzell, M. et al. 2024 United States | Cross-sectional, comparative, interview-based study. N = 103 children with ASD (age: 2 –10 years). | To correlate food selectivity (FS) with children with ASD treated at a general outpatient autism clinic. | A multidisciplinary team (nutritionist, psychologist, and pediatric nurse) assessed the medical and psychosocial histories and eating habits of 103 children with ASD. | Food selectivity in children with ASD was associated with greater disruptive behaviors during feeding and with hyperactivity, behaviors that directly affect their dietary patterns and increase the prevalence of selective eating in this group. |

Source: developed by the authors, 2026.

## Results and discussion

The studies analyzed employed a variety of methodological approaches, including six cross-sectional and observational studies, one interventional pilot study, and a broad nationwide institution-based survey, providing a diverse understanding of the relationship between food selectivity and its implications for the nutritional status of children with ASD in public health.

Overall, the studies indicate that food selectivity is frequently associated with nutritional alterations in children with ASD. In addition to feeding difficulties, several authors observed an association between food selectivity, sensory alterations, gastrointestinal symptoms, and changes in child growth and development. Many cases also involved a diet with little variety, excluding important food groups and including greater intake of ultra-processed products, leading to childhood overweight and obesity.

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The study by Alves et al. (2023), involving 92 children with ASD supported by a social movement in Macaé, Rio de Janeiro, identified food selectivity in 59.8% of the sample, with a higher frequency among preschoolers (67.3%) than school-age children (32.7%), also influenced by socioeconomic conditions. These findings corroborate the study conducted by Dubourdieu and Guerendiain (2022) in Uruguay, as both state that dietary rigidity associated with sensory characteristics, especially food texture, together with the influence of family eating habits, compromises the intake of essential food groups and increases nutritional vulnerability.

Similarly, the study by Mirizzi et al. (2025), conducted in southern Italy, expanded understanding of food selectivity in children with ASD by identifying a high-risk subphenotype characterized by the association between sensory hypersensitivity and frequent gastrointestinal symptoms. Children with ASD exhibited greater food refusal and less dietary variety than their typically developing peers. This limited dietary variety may favor both micronutrient deficiencies and overweight and obesity, directly affecting nutritional status.

Furthermore, the study conducted by Grot et al. (2024) also found a high prevalence of food selectivity in individuals with ASD, characterized mainly by restrictions on dairy products, fish, and whole grains, associated with frequent consumption of refined carbohydrates and ultra-processed foods. Low water intake and preference for sugary drinks were also identified as additional factors in nutritional and gastrointestinal vulnerability. Regarding dietary patterns, Metwally et al. (2024) show that children with ASD consume more energy-dense, sugar-rich foods than their neurotypical peers. This intake results in consequences such as overweight and obesity in children with ASD, since these foods offer little nutrient variety.

These findings align with the study by Metwally et al. (2024), conducted in Egypt, which revealed through a nationwide comparison based in healthcare facilities such as Maternal and Child Health (MCH) and Primary Health Care (PHC) units that Egyptian children with ASD are at high risk of malnutrition due to qualitative dietary inadequacies and have a greater likelihood of obesity and overweight than neurotypical children. A comparative analysis of anthropometry and dietary patterns in these 509 children (285 with ASD and 224 healthy relatives) found severe deficiencies in vitamins C, D, B6, and B12, folate, calcium, zinc, and iron among children with ASD. Deficiencies in these nutrients may significantly compromise healthy growth and development, as they play crucial roles in cognitive, neurological, and immune development and in bone and body growth, while also increasing vulnerability to other diseases.

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Similarly, the analysis of the Turkish pediatric population by Sağlam Şahinoğlu and Bakırhan (2025) indicates that food selectivity is a direct predictor of poor diet quality in ASD, significantly exceeding the patterns observed in healthy peers. The study highlights that although BMI may remain within normal ranges, dietary rigidity and limited intake of essential micronutrients, such as fat-soluble vitamins and calcium, predispose these children to subclinical deficiencies. Furthermore, the high prevalence of gastrointestinal disorders and their correlation with poor quality of life reinforce the need for multidisciplinary public healthcare that integrates nutritional surveillance into routine monitoring to mitigate risks to skeletal and systemic development.

The study conducted by Wenzell et al. (2024) at an outpatient ASD clinic in Atlanta identified a high prevalence of food selectivity, present in 45.6% of the children assessed, mainly associated with disruptive mealtime behaviors and hyperactivity. The results suggest that nutritional alterations related to selectivity may remain masked in early childhood, especially when assessed solely through anthropometric parameters. They reinforce that nutritional assessment in ASD should go beyond isolated anthropometric measures and include sensory, gastrointestinal, and family aspects to develop multidisciplinary care strategies.

In summary, most of the reviewed studies (Alves et al., 2023; Grot et al., 2024; Metwally et al., 2024; Dubourdieu and Guerendiain, 2022; Mirizzi et al., 2025; Sağlam Şahinoğlu and Bakırhan, 2025) particularly emphasize the need for broader, individualized nutritional assessments in children with ASD, considering anthropometric parameters as well as sensory, gastrointestinal, behavioral, and family aspects. In addition, the pilot study developed by Cerchiari et al. (2023) reinforces the importance of active parental participation in therapy and demonstrates the need for multidisciplinary approaches integrating nutrition, speech-language therapy, and family support in managing food selectivity in children with ASD, alongside early nutritional monitoring to prevent dietary inadequacies and nutritional deficiencies.

According to Alves et al. (2023), food selectivity therefore poses a challenge to Food and Nutrition Security (FNS), particularly in low-income families, where difficulty accessing quality foods may mask or aggravate nutritional deficiencies. To reduce these problems, Metwally et al. (2024) suggest that routine anthropometry in children with ASD at Primary Health Care (PHC) units is essential to assess the need for referral to a specialized nutritionist for possible intervention. This demonstrates the importance of nutritionists' role in managing food selectivity in children with ASD, assessing both anthropometric and nutritional issues to prevent nutrient deficiencies, overweight, and obesity. The findings reinforce the need for

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individualized nutritional monitoring and food desensitization strategies aimed at increasing dietary diversity and preventing nutritional deficiencies in children with ASD.

Despite the consistency of the findings, some limitations of the studies analyzed must be considered. Most investigations used parental reports and subjective questionnaires to assess eating behavior, which may introduce recall and interpretation biases. Important methodological differences were also observed, including small sample sizes, clinical heterogeneity of ASD, and cultural differences in the dietary patterns assessed, factors that hinder direct comparisons between results.

The findings of this review therefore demonstrate that food selectivity in children with ASD represents an important public health challenge, associated with qualitative dietary inadequacies, gastrointestinal symptoms, risk of nutritional deficiencies, and possible repercussions for child growth and development. The results reinforce the need for individualized nutritional monitoring, early dietary surveillance, and multidisciplinary strategies aimed at increasing dietary diversity and promoting health in this population.

## Conclusion

This integrative review showed that studies frequently associate food selectivity with nutritional alterations in children with Autism Spectrum Disorder (ASD). Several authors observed an association between food selectivity, sensory alterations, and gastrointestinal symptoms, including qualitative dietary inadequacies, risk of micronutrient deficiencies, and greater vulnerability to overweight and obesity. The studies analyzed demonstrated that dietary restriction, often related to sensory and behavioral alterations, contributes to reduced dietary variety and compromises adequate intake of nutrients essential to child growth and development.

Nutritional assessment of these children should go beyond isolated anthropometric parameters and include sensory, gastrointestinal, family, and behavioral aspects. In this context, the findings reinforce the importance of individualized nutritional monitoring, early dietary surveillance, and multidisciplinary practice in managing food selectivity, aiming to increase dietary diversity and prevent nutritional problems.

Although the studies analyzed demonstrate relevant impacts of food selectivity on nutritional status, research on this topic remains limited. Limitations in the literature were also identified, including the predominance of studies based on parental reports and subjective questionnaires, as well as methodological differences related to sample size, clinical

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heterogeneity of ASD, and cultural particularities of the dietary patterns assessed. These factors hinder direct comparison between studies and demonstrate the need for greater standardization in future research. Expanding scientific production on the topic is also necessary to deepen understanding of the nutritional impacts of food selectivity. Food selectivity therefore represents an important challenge for public health and for promoting health in children with ASD.

Finally, further research is needed to deepen understanding of the nutritional impacts of food selectivity and assess intervention strategies capable of improving diet quality, nutritional status, and quality of life in this population.

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