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Review Article

Exploring the spectrum of feeding challenges in children with autism spectrum disorder: A narrative review of aetiology, impact, and intervention strategies

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Highlights/Key Messages

- Feeding issues in ASD reflect neurodevelopmental differences, not defiance.
- Early feeding signs may precede formal ASD diagnosis.
- Sensory and interoceptive differences shape food behaviours.
- Feeding problems impact nutrition, stress, and family life.
- Multidisciplinary, family-led care improves feeding outcomes.

Background
Feeding problems are among the most prevalent and troublesome comorbidities in childhood autism spectrum disorder (ASD), yet, in general, are poorly understood and managed erratically. While "picky eating" is common in early childhood, feeding problems of ASD are markedly more intense, persistent, and multifaceted, related to neurodevelopmental differences rather than behavioural resistance.

Objective
This narrative review summarises current literature to delineate the spectrum, the aetiology, and consequences of feeding problems in children with ASD and to outline emerging principles of assessment and management.

Methods
A structured literature search was performed in PubMed and Google Scholar for English language studies examining prevalence, characteristics, correlates and management of feeding problems in children (0–18 years) with ASD. Empirical investigations published in peer-reviewed journals were identified; non-empirical works, studies of adults, or unrelated disorders were excluded.

Results
Feeding problems in ASD include a heterogeneous range of behaviours, which include extreme food selectivity, sensory aversions, food neophobia, ritualistic behaviours at mealtime, and pica. These are dysregulated by sensory processing difficulty, cognitive rigidity, interoceptive differences, gastrointestinal, and oral-motor comorbidities. The effects of such difficulties include nutritional deficiencies, failure to thrive, family distress, and social isolation. Use of family-centred feeding interventions, specifically parent training interventions and neurodiversity-affirming behavioural approaches, has the potential to enhance outcomes.

Conclusion
Feeding difficulties in ASD present a complex neurodevelopmental phenotype that has serious biopsychosocial implications. To ensure appropriate management with evidence-based, compassionate approaches, these difficulties must be considered manifestations of sensory and cognitive differences rather than oppositional behaviour. Future work must focus on consensus on definitions, adopting a cross-cultural perspective, and the development of scalable mechanisms to enhance nutrition and family quality of life.

Keywords: autism spectrum disorder, feeding difficulties, food selectivity, sensory processing, multidisciplinary care

Introduction

Autism Spectrum Disorder (ASD) is a complex neurodevelopmental condition characterised by persistent deficits in social communication and interaction, alongside restricted and repetitive behaviours or interests (Baraskewich et al., 2021). Beyond these core features, co-occurring feeding and eating difficulties have emerged as significant and pervasive concerns across all ages and cognitive levels in individuals with ASD (Kang et al., 2022). Although selective or "picky" eating is common in typically developing children, the feeding characteristics seen in autism are markedly more severe, persistent, and resistant to change, distinguishing them from the less severe and often transient food preferences observed in neurotypical populations (Baraskewich et al., 2021; Kang et al., 2022).

The burden caused by these atypical eating patterns is underscored by their very high prevalence. Studies report that between 44% and 89% of children with ASD have eating problems, which are five times as common as in neurotypical children (Sharp et al., 2013; Mari-Bauset et al., 2014; Seiverling et al., 2018). Such findings indicate the need to move away from the colloquial label of "picky eating" to characterise the complexity and functional impact of this eating disturbance. Feeding is not only a nutritional act but is also a deep social and emotional experience. Having a balanced diet is widely seen as a hallmark of good parenting; persistent eating problems tend to be a source of stress and self-doubt for caretakers. For the child, unremitting eating problems may lead to inadequate intake of essential nutrients, failure to thrive, problems with malnutrition, or marked micronutrient deficiencies. Conversely, eating disturbances may also predispose certain children to excessive weight gain as well as obesity (Sharp et al., 2013).

Despite their high prevalence and clear clinical importance, an in-depth understanding of the eating problems in ASD is still lacking. A primary obstacle to advancement is the lack of standardised terminology and diagnostic criteria for these behaviours (Vissoker et al., 2015). This lack of consensus limits the comparability of studies, complicates prevalence estimates, and hinders the identification of mutually efficacious management techniques (Zhu et al., 2019). Furthermore, much of the existing literature has concentrated either on medical or behavioural aspects of eating in isolation, frequently ignoring the broader impact on children's daily participation in mealtime routines and family life, a principal domain for social interaction and developmental learning (Gent et al., 2025).

Given these gaps, the purpose of this narrative review is to synthesise current evidence to characterise the heterogeneity of feeding problems in autism, explore contributing mechanisms, and delineate their nutritional, developmental, and psychosocial implications. Specifically, this review conceptualises feeding difficulties in autism as a multidimensional neurodevelopmental phenomenon arising from the interaction of sensory processing differences, behavioural regulation, nutritional implications, and family context. In doing so, this review seeks to identify key predictors of severity and map out the design of multidisciplinary, neurodiversity-affirming care approaches. Ultimately, this synthesis provides a conceptual framework for mitigating the long-term consequences of feeding difficulties through timely, targeted, and evidence-based interventions. Table 1 summarises the conceptual contribution of the present review compared with previous literature.

Table 1. Conceptual contribution of the present review compared with previous literature

Aspect	What is previously known	What this review adds
Conceptual framing	Feeding issues often discussed as behavioural selectivity or mealtime problems	Conceptualised as multidimensional neurodevelopmental phenomena integrating neurodevelopmental, behavioural, and nutritional perspectives
Scope of impact	Focus on child feeding behaviour	Introduces ripple effect model linking feeding issues to nutritional effects, family systems and social participation
Management perspective	Behavioural and sensory based strategies	Neurodiversity-affirming, multidisciplinary framework integrating medical, nutritional, behavioural, sensory, and family-centred management

Objectives

- To describe the nature, severity, and types of feeding and eating problems in children with ASD.
- To examine biological, behavioural, and environmental factors associated with these feeding challenges.
- To evaluate existing assessment methods and intervention strategies, emphasizing adaptations suited to the ASD population.

Methods

Research Design

The present analysis uses a narrative review design to synthesise and critically discuss the existing literature on the spectrum of feeding problems experienced by children with ASD. The review aims to provide a synthesis of results from previous research, with the goal of developing an overall logical understanding rather than a quantitative meta-analysis of the results. The process consisted of identifying the area of research and formulating the research problem, conducting systematic searches of the relevant databases, identifying studies that met the selection criteria, and evaluating and interpreting the evidence.

Literature Search and Identification of Studies

A structured literature search was conducted in PubMed and Google Scholar to identify studies published in English between 2006 and 2025. These databases were selected because PubMed provides comprehensive coverage of biomedical and clinical literature, while Google Scholar allows broader retrieval of interdisciplinary publications, including behavioural and nutrition research relevant to feeding challenges in ASD.

The search strategy involved combining keywords and Medical Subject Headings (MeSH) relevant to the area of

study. The main keywords used were: "feeding problems" OR "feeding difficulties" OR "food selectivity" OR "picky eating" and "autism spectrum disorder" OR "ASD" and "children" OR "childhood" OR "paediatric". Also, the references of a few key articles and reviews were examined to identify relevant studies that may not have been found in the computerised literature search.

Data Selection, Extraction, and Analysis

The titles and abstracts were screened to identify studies that met the inclusion criteria, with the initial search yielding 346 records and 33 studies were ultimately included. The texts of full articles thought likely to be useful were reviewed for suitability.

Inclusion Criteria

- Studies that target children between 0 and 18 years, diagnosed with ASD, published between 2006 and 2025.
- Primary or secondary focus on the presentation, aetiology, correlates, or outcome investigated relating to feeding or eating problems of ASD.

Exclusion Criteria

- Studies that target adults (>18 years) only or that consider other developmental, genetic, or psychiatric conditions without a distinct ASD subtype.
- Studies that consider medical comorbidities (e.g., gastrointestinal disorders) that do not assess or consider their relationship to feeding or mealtime behaviours.
- Non-empirical works such as opinion pieces, editorials, theses, or conference abstracts.
- Articles for which full-text versions were not available
- Studies not published in peer-reviewed journals.

Thematic Synthesis

A thematic synthesis approach was used to organise and interpret the literature. Feeding challenges in ASD were categorised into core domains, while also considering family and environmental factors. Nutritional, growth, psychosocial, and developmental consequences of these feeding difficulties were integrated across domains. Intervention strategies were similarly examined, encompassing behavioural, sensory-based, parent-mediated, and multidisciplinary programs.

Results

A Categorical Overview: Manifestations of the Feeding Challenges

Feeding issues in ASD manifest through diverse clinical presentations that should be understood not merely as behavioural disturbances but as expressions of underlying neurodevelopmental features, particularly sensory processing differences, cognitive rigidity, and restricted interests (Margari et al., 2020). These challenges are highly prevalent, with large-scale studies reporting that up to 84% of autistic children experience clinically significant feeding difficulties, rates far exceeding those of typically developing peers (St. John & Ausderau, 2024; Leader et al., 2020).

As summarised in Figure 1, these challenges can be categorised into several core domains, including extreme food selectivity, food neophobia, sensory aversions, and ritualistic eating behaviour, which often coexist and interact dynamically. Critically, these challenges frequently emerge in infancy or early childhood, with longitudinal research demonstrating that their trajectory diverges significantly as early as 15 to 24 months of age, well before the median age of an autism diagnosis, highlighting their potential as an early developmental marker (Ashley et al., 2019, St. John & Ausderau, 2024; Bresciani et al., 2023).

Figure 1. The Spectrum of Feeding challenges in ASD

(Baraskewich et al., 2021; van Dijk et al., 2021; Marshall et al., 2014; Margari et al., 2020; Twachtman-Reilly et al., 2008; St. John & Ausderau, 2024; D'Angelo et al., 2025).

Food Selectivity

Food selectivity, defined as a restricted range of accepted foods, is the most prevalent feeding concern among children with ASD (Baraskewich et al., 2021; van Dijk et al., 2021). This hyper-selectivity differs from more typical picky eating habits in terms of severity, scope, and persistence (Kang et al., 2022; Ledford & Gast, 2006). In part, it manifests as a strong preference or rejection based on very specific criteria (Kang et al., 2022). A key characteristic of this selectivity is dietary restriction, in which children drop previously accepted foods and experience significant difficulty integrating new items into their food repertoire, a pattern that predicts greater overall severity of feeding challenges (St. John & Ausderau, 2024). Specific preferences frequently cited in the literature include selection based on:

- ***Specific Brands and Packaging***: One study found that nearly 13% of autistic children refused food because of brand or packaging (Baraskewich et al., 2021; van Dijk et al., 2021).
- ***Textures***: Texture sensitivity is the most commonly reported sensory-based challenge, affecting up to 84.5% of autistic children with feeding difficulties (St.

John & Ausderau, 2024). Some children are rejecting foods with smooth, creamy textures (e.g., mashed potatoes), lumpy consistencies (e.g., oatmeal), or foods requiring substantial chewing (e.g., unprocessed meat), while others demonstrate a preference for smooth, consistent textures over mixed or lumpy foods (Baraskewich et al., 2021; Twachtman-Reilly et al., 2008; Ledford & Gast, 2006).

- ***Colours***: Refusal based on colour, sometimes leading to anecdotally reported "white-food diets" (Marshall et al., 2014).
- ***Food Presentations***: This selectivity can manifest as a rigid insistence on specific presentation of food or the organisation of food on the plate (e.g., demanding that foods not touch each other) (van Dijk et al., 2021; Vissoker et al., 2015). Other demands include the use of specific cutlery or utensils. These requirements also fall under ritualistic and/or idiosyncratic eating behaviours, which are observed more frequently in youth with autism than in their typically developing peers (van Dijk et al., 2021).

Food Neophobia

Food neophobia, defined as an excessive and persistent fear of eating new or unfamiliar food, is very common in children with ASD (Baraskewich et al., 2021). In the case of normally developing children, food neophobia tends to decline with increasing age, while in children with ASD, this attitude tends to be long-lasting (Marshall et al., 2014). The reluctance is closely related to the child's general fear of the unknown, cognitive inflexibility, and heightened sensitivity to the sensory properties of food (Spek et al., 2020). Difficulties in introducing new foods are further reinforced by factors such as food appearance, peer influence, and urban lifestyles that favour convenient processed options (Ismail et al., 2020).

Sensory Aversions

Sensory processing issues are widely reported in ASD and implicated in feeding problems (Twachtman-Reilly et al., 2008). Between 78% and 90% of children with ASD experience sensory processing difficulties, often cited as a direct cause of high feeding-problem prevalence (Nadon et al., 2011; Leader et al., 2020). These issues stem from atypical sensory reactivity, ranging from hypo- to hyper-responsiveness across sensory domains. Key sensory characteristics contributing to aversions include texture, odour, taste (noted in 61.8% and 56.9% of cases, respectively), temperature, and visual appearance (Margari et al., 2020; Twachtman-Reilly et al., 2008; St. John & Ausderau, 2024). In addition to food characteristics, children may also have inappropriate sensitivity to mealtime situations or environments, such as noise (59.3%), the presence of people (44.7%), odours, lighting, or other sensory issues (St. John & Ausderau, 2024; Gent et al., 2025).

Ritualistic and Rigid Eating Behaviours

Ritualistic and rigid eating behaviours are often manifestations of core neurobehavioural features of ASD, reflecting repetitive behaviours and cognitive inflexibility (Twachtman-Reilly et al., 2008). These behaviours include adherence to particular routines around feeding times, e.g.:

- Specific methods of preparation or particular recipes (Marshall et al., 2014).
- A need to use the same plate, cup, or specific utensils (Baraskewich et al., 2021).
- Rigid organisational needs, such as ensuring foods are cut into identical shapes or sizes.
- Fixed sequences of eating foods or drinking liquids (Vissoker et al., 2015).

This may provide a sense of predictability and control in the world, which can otherwise feel sensorially overwhelming. Deviations from these feeding rituals may lead to significant distress and behavioural difficulties (Gent et al., 2025).

Pica

Pica, the persistent consumption of non-nutritive substances such as soil, hair, or paint, is frequently reported among individuals with ASD. It is also considered one of two formally defined feeding disorders outlined in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), along with rumination disorder (characterised by the repeated regurgitation and re-chewing or re-swallowing of previously ingested food). Studies have found relatively high rates of pica in samples of autistic youth, ranging from 12% to almost 30% (Baraskewich et al., 2021). These tend to arise from sensory-seeking behaviours, difficulties in impulse control and emotional regulation, and the use of non-food items as a form of self-stimulation or coping strategy to relieve internal discomfort (D'Angelo et al., 2025).

Comorbid Medical Issues

The presentation of feeding difficulties in children with ASD is often complicated by co-occurring medical conditions. There is a recognised strong relationship between eating problems and gastrointestinal dysfunction in this population. A systematic review of 144 studies (1980–2017) reported a median prevalence of 46.8% for at least one gastrointestinal symptom among individuals with ASD (Holingue C., et al. 2018). Common issues include:

- **Gastroesophageal reflux disease (GERD)**: GERD is a common medical issue associated with feeding problems, specifically pertaining to food refusal (Twachtman-Reilly et al., 2008; Vissoker et al., 2015). Even after resolution of underlying reflux, children who have experienced painful feeding due to GERD may continue with food refusal (Nadon et al., 2013).
- **Constipation**: Functional constipation is among the most diagnosed gastrointestinal (GI) disorders in children diagnosed with ASD, with reports of prevalence ranging from 36%-47% (Bresciani et al., 2023; Leader et al., 2020). Painful defecation may lead to anticipatory avoidance of bowel movements, increased stool withholding, and associated abdominal discomfort, which in turn can suppress appetite and reduce oral intake, thereby reinforcing a

negative cycle of feeding difficulties and constipation.

- **Oral-motor difficulties/dyspraxia**: Children with ASD have been noted to have difficulties with motor skills, i.e., chewing, swallowing, and inadequate tongue coordination (Vissoker et al., 2015; Nadon et al., 2013). These oral-motor impairments may arise from underlying neurological motor coordination problems (e.g., dyspraxia) as well as sensory–motor integration difficulties (Chaware S.H., et al. 2021). Difficulties during early feeding transitions (i.e., complementary foods to table foods) are major predictors of later oral-motor-based feeding difficulties (St. John & Ausderau, 2024). Although severe dysphagia or difficulty in swallowing is less commonly reported unless additional complex needs are present, oral motor difficulties can directly impact food acceptance and feeding mechanics (Twachtman-Reilly et al., 2008).

The following section explores the underlying mechanisms of these feeding problems and their links to the core features of ASD.

Unravelling the Aetiology: A Complex Interplay of Core ASD Features and Comorbidities

Feeding problems in ASD have a multifactorial aetiology, resulting from a multidimensional interaction of core neurodevelopmental symptoms and comorbidities (Adams, 2022). A central pillar is Sensory Processing Differences, in which abnormal sensory input—characterised by hypo- or hyper-reactivity to the tactile, olfactory, gustatory, and visual attributes of food—significantly drives food acceptance/rejection (Margari et al., 2020). Thus, sensory sensitivity to properties including texture, taste, smell, colour, and presentation leads to food selectivity, illustrating that what is commonly interpreted as a behavioural choice is, in fact, a neurological response to aversive or overwhelming stimuli (Baraskewich et al., 2021; Twachtman-Reilly et al., 2008). These complex feeding behaviours are amplified by core Cognitive and Behavioural Factors typical of ASD, such as Restricted Repetitive Behaviours, insistence on sameness and ritualistic behaviours, where rigidity becomes fixed rules about food preparation methods, using designated utensils, or arrangement of food (American Psychiatric Association, 2013; Baraskewich et al., 2021). Cognitive inflexibility and a refusal to transition and embrace novelty contribute to persistent food neophobia (Spek et al., 2020). This is further complicated by interoceptive abnormalities, which can prevent children from accurately recognising or expressing internal cues, such as hunger, satiety, or visceral pain, further complicating feeding interactions and the ability to communicate discomfort (Adams, 2022). In addition, the high prevalence of gastrointestinal and oral-motor comorbidities can create a negative feedback loop of discomfort and avoidance that reinforces selective eating patterns (Vissoker et al., 2015; Nadon et al., 2013). For example, a multidisciplinary study found that aggressive and stereotyped behaviours were associated with sleep difficulties, and this association was stronger in those with more problematic mealtime behaviours, demonstrating a synergistic negative impact between comorbidities (Bresciani et al., 2023). The combination of these factors creates a highly stressful feeding context that invariably alters the child's nutritional health and the daily lived experience of the entire family.

Synthesising the clinical features and underlying mechanisms discussed above, feeding problems in ASD can be organised into several core domains reflecting behavioural, sensory, medical, and psychosocial contributors (Table 2).

Table 2. Core domains contributing to feeding challenges in autism spectrum disorder

Domain	Key Clinical Characteristics	Underlying Mechanisms	Representative Evidence
Food Selectivity	Restricted food repertoire and strong acceptance or rejection based on specific characteristics such as texture, colour, brand, packaging, or presentation.	Sensory sensitivity to food properties, cognitive rigidity, restricted interests, and insistence on sameness.	St.John & Ausderau 2024; Baraskewich et al. 2021; Kang et al. 2022; van Dijk et al., 2021; Vissoker et al., 2015; Twachtman-Reilly et al., 2008
Food Neophobia	Persistent reluctance or refusal to try unfamiliar foods. It often persists into later childhood in ASD.	Cognitive inflexibility, fear of novelty, sensory sensitivities, and environmental influences such as food appearance, peer influence, and urban lifestyles	Baraskewich et al. 2021; Spek et al. 2020; Marshall et al. 2014; Ismail et al., 2020
Sensory Aversions	Strong aversive responses to sensory attributes of food with sensitivity that may extend to environmental stimuli during meals (noise, lighting, presence of people).	Atypical sensory processing with hypo- or hyper-reactivity across sensory modalities affecting feeding behaviour	Nadon et al. 2011; Margari et al. 2020; Gent et al. 2025; Twachtman-Reilly et al., 2008; Leader et al., 2020; St. John & Ausderau, 2024
Ritualistic and Rigid Eating Behaviours	Fixed routines surrounding mealtimes, such as using specific	Core ASD features, including restricted and repetitive	Twachtman-Reilly et al. 2008; Vissoker et al. 2015; Marshall et

Domain	Key Clinical Characteristics	Underlying Mechanisms	Representative Evidence
	recipes, utensils, food arrangements, or rigid eating sequences.	behaviours, insistence on sameness	al., 2014; Baraskewich et al., 2021; Gent et al. 2025
Pica	Persistent ingestion of non-nutritive substances such as soil, hair, or paint	Sensory-seeking behaviours as a coping strategy, as a form of self-stimulation	Baraskewich et al. 2021; D'Angelo et al., 2025
Comorbid Medical Contributors	Feeding difficulties associated with gastrointestinal conditions (e.g., gastroesophageal reflux disease, constipation) and oral-motor impairments affecting chewing and swallowing	Pain, discomfort, oral-motor coordination difficulties, sensory-motor integration difficulties, and negative feeding experiences	Holingue et al. 2018; Nadon et al. 2013; Chaware S.H., et al. 2021; Twachtman-Reilly et al., 2008; Vissoker et al., 2015; Bresciani et al., 2023; Leader et al., 2020; St. John & Ausderau, 2024

The Ripple Effect: Impact on Child Health to Family Systems

The chronic and complex feeding problems of children with ASD can have detrimental consequences for children's health, family function, and participation (Adams, 2022). Nutritional deficits and micronutrient deficiencies, such as calcium, iron, zinc, and B-vitamins (particularly B12), as well as other essential vitamins, become immediate health problems for the child (Leader et al., 2020; Ismail et al., 2020). These deficiencies can lead to growth delays and failure to thrive, and may also be associated with an increased risk of childhood obesity, primarily driven by a preference for energy-dense, high-fat, high-sugar carbohydrate foods (Leader et al., 2020; Bresciani et al., 2023).

In addition to the child's physical health, feeding problems are a major, complex, multi-factorial burden for the whole family. Caregivers may suffer high levels of psychological distress, such as stress, anxiety, feelings of inadequacy, and perceived failure when they have the responsibility for providing a nutritious diet– an effort that can become a daily battle filled with refusal, gagging, and meltdowns (van Dijk et al., 2021; Nadon et al., 2013; Gent et al., 2025). In addition, this stress is exacerbated by not being understood by those in the extended family, friends, and the community, who may judge the parent's parenting skills or the child's behaviour, resulting in feelings of isolation and stigma (Gent et al., 2025). The practical aspects may also be significant, requiring considerable time and effort to find preferred food items, prepare separate meals, and manage difficult mealtime behaviours. This can also require additional financial resources for special food sources. In response to these ongoing challenges, some caregivers may adopt more restrictive feeding practices as coping mechanisms, which can further perpetuate feeding-related anxiety. (Marshall et al., 2014; Cherif et al., 2018; Ismail et al., 2020).

Most importantly, these problems impact mealtime participation and social inclusion. Families often face social participation restrictions, such as not being able to eat at restaurants or participate spontaneously in community activities, family celebrations, or holidays (Gent et al., 2025; Rogers et al., 2012). Caregivers report careful planning for each social interaction, such as packing their child's food, pre-feeding them, or choosing venues based on the presence of accepted food. Some families do not take holidays or attend social occasions, leading to social isolation and a decline in quality of life for both the child and the family unit (Gent et al., 2025). This overall impact is represented by a "Ripple effect" model, as shown in Figure 2, which underscores why the evaluation, understanding, and treatment of feeding problems are regarded as an urgent clinical and research priority.

Figure 2. A Ripple effect model illustrating the consequences of feeding problems from the core child to the wider family unit

Addressing the Challenge: Principles of Assessment and Evidence-Based Interventions

Effective management of feeding problems in ASD necessitates a holistic, multidisciplinary approach (Hyman et al. 2020), beginning with a comprehensive assessment as outlined in Figure 3. This assessment must be multi-faceted, starting with a medical work-up to screen for and treat underlying GI issues, oral-motor deficits, and food allergies/sensitivities, as these organic problems can cause significant discomfort and directly contribute to food refusal (Vissoker et al., 2015). Concurrently, a detailed dietary analysis—using tools like 3-day food records, weighted food diaries, or food frequency questionnaires (FFQs)—conducted

with a nutritionist or dietitian is crucial to identify nutritional gaps (e.g., fibre, iron, vitamins) and patterns of high-caloric, low-nutrient intake that predispose children to nutrient deficiency and obesity (Gray et al., 2022). A behavioural and sensory assessment is equally critical to determine the function of the feeding behaviour, distinguishing between avoidance driven by sensory aversion, escape from demands, or attempts to gain access to preferred items (Nadon et al., 2013).

The intervention spectrum must be inherently family-centred, recognising that parent education and support are the cornerstones of effective management. This involves psychoeducation, managing expectations, and developing strategies to decrease pervasive mealtime stress, thereby improving the experience for the entire family unit (Vissoker et al., 2015; Rogers et al., 2012). In ecologically valid home settings, parents naturally employ a wide array of strategies to support mealtime participation, including meal preparation and adaptability (e.g., preparing separate meals, arranging food in specific ways), play and imagination to engage the child, and the strategic use of props (e.g., favourite toys, iPads) as distractions or positive reinforcements (Ausderau et al., 2019). Understanding and building upon these naturally occurring strategies, rather than supplanting them, is key to developing acceptable and sustainable interventions.

Evidence-based behavioural interventions, such as positive reinforcement, graduated exposure, and systematic desensitisation, remain fundamental for facilitating food acceptance and flexibility, particularly when individualised to the child's sensory tolerance (Vissoker et al., 2015; Chao, 2021). When strategies such as escape extinction are considered, they must be applied judiciously, within clear ethical boundaries, and adapted to respect the child's distress thresholds (LaRue et al. 2011). These strategies, showing promise in improving dietary variety and mealtime behaviours, can be effectively structured within manualised parent-training programs like the Autism MEAL Plan and the Autism Eats intervention, which integrate ASD-specific strategies (e.g., repeated food exposure, food chaining) with behaviourally-focused nutrition education (Sharp et al., 2019; Gray et al., 2022). Furthermore, sensory integration therapy delivered by occupational therapists is often incorporated to address underlying sensory hypersensitivities, for instance, through tactile exploration of foods to desensitise aversive responses (Nadon et al., 2013).

The importance of a collaborative approach extends beyond the clinic and home into the school environment. Special education teachers play a vital role but often face significant challenges, including uncertainty about effective practices and difficulties in collaborating with parents and other staff, which can be mitigated by establishing clear, consistent support plans (Fujino and Ikeda, 2023). Effective treatment ultimately relies on a robust multidisciplinary team model. This team—comprising paediatricians, dietitians, occupational therapists, speech-language pathologists, psychologists, and crucially, the family and educators—ensures that interventions are cohesive, individualised, and address the child's needs across all environments to achieve optimal therapeutic outcomes (Vissoker et al., 2015; Fujino and Ikeda, 2023).

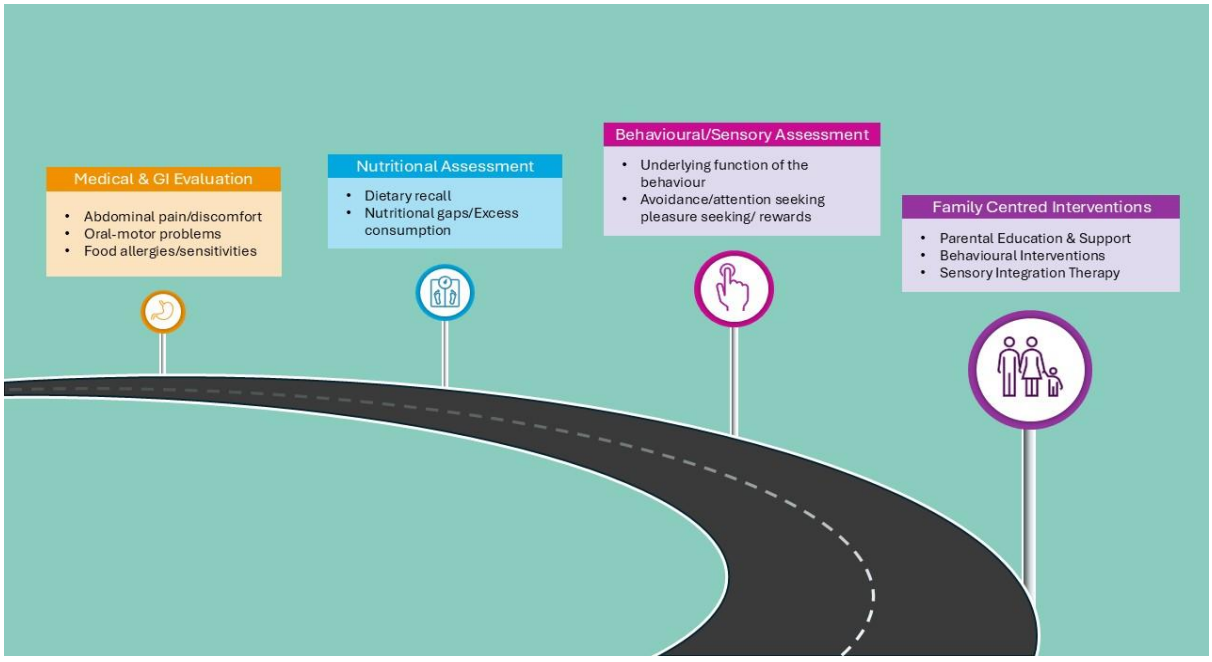

Figure 3. A stepwise, integrated approach to navigating feeding problems, highlighting essential assessment components and concurrent intervention strategies

(Hyman et al. 2020; Vissoker et al., 2015; Rogers et al., 2012; Fujino and Ikeda, 2023; Nadon et al., 2013)

Conclusions

Feeding challenges in ASD are a complex clinical problem that results from the interaction of neurodevelopmental, sensory, behavioural, and medical factors. Rather than simply oppositional behaviour, the problems exhibit sensory sensitivities, cognitive rigidity, or differences in

interoception that shape how autistic children perceive and respond to food. Difficulties with extreme food selectivity, neophobia, and ritualistic behaviours around mealtimes are not only pervasive but also appear often early in life, even before an ASD diagnosis has been made.

The consequences extend beyond nutritional deficiencies and growth problems to psychosocial stressors and relevant family issues. Feeding problems disrupt family routines, increase caregiver stress, and limit opportunities for participation in social and community settings, affecting the quality of life for the child and the family unit.

Solutions to these complex problems require a holistic multidisciplinary approach to feeding that incorporates medical, nutritional, behavioural, and sensory perspectives. Central to any effective treatment of these problems is the participation of caregivers as active partners in their management; caregivers should be educated about feeding and given solutions that specifically reduce feeding anxiety and stress and promote positive feeding experiences. Understanding the feeding problems in terms of neurodevelopmental difference rather than in terms of behavioural issues (as they are more commonly conceived) is crucial in fostering an environment of compassionate, evidence-based management of autistic children and their families.

Limitations

This narrative review has several limitations that should be acknowledged. First, the literature search was restricted to studies published in English and indexed in PubMed and Google Scholar, which may have resulted in the omission of relevant studies indexed in other databases. Second, as a narrative synthesis rather than a systematic review or meta-analysis, the process of study selection and interpretation may be subject to some degree of selection bias. In addition, much of the existing evidence on feeding challenges in ASD originates from high-income Western countries, which may limit the cultural generalisability of findings to low- and middle-income contexts where feeding practices, dietary patterns, and family structures differ. Furthermore, many studies rely heavily on parent-reported questionnaires and are based on relatively small clinical samples, which may introduce reporting bias. These limitations highlight the need for more culturally diverse and methodologically rigorous research in this field.

Future Directions: Charting the Unexplored Territory

Thus, significant gaps are still present in the literature with regard to feeding challenges in autism spectrum disorder. The following types of research need priority:

- Longitudinal studies to look at predictors and trajectories of feeding problems and the extent to which they continue into adolescence or adulthood (Baraskewich et al., 2021).
- Research on obtaining observational measures to examine the mealtime problems, cultural differences in food preferences, parenting, and feeding needs to be addressed (Kang et al., 2022).
- Studies developing consistent definitions and nomenclature of feeding/eating problems, pointing out differences between those with ASD and other feeding/eating disorders such as Avoidant/Restrictive Food Intake Disorder (Baraskewich et al., 2021).
- The development and rigorous testing of feasible interventions across multiple settings. That includes tests on manualised parent-directed nutrition education programs (Gray et al., 2022) and testing or observations to be used across different educational environments within schools to help teachers manage behaviour related to mealtimes (Fujino and Ikeda, 2023).
- Studies clarifying which mechanisms, such as sensory processing, parental self-efficacy, or family dynamics, interventions exert their effects through.
- More qualitative understanding of lived experiences of all stakeholders, including fathers, siblings, and children with ASD themselves, to ensure that interventions are truly individual-centred and target the most important quality of life outcomes (Ausderau et al., 2019).

At a broader public health level, integrating feeding support for children with ASD into school nutrition programs and community-based child health services may represent an important strategy, particularly in low- and middle-income contexts where access to specialised multidisciplinary feeding services is limited. Training educators and community health providers to recognise feeding challenges and support inclusive mealtime environments could improve nutritional outcomes while reducing the burden on families. Ultimately, feeding challenges are not a marginal issue, but a central component of health, functioning, and quality of life for those with ASD and their families, and should be placed at the centre of our clinical practice and research agendas.

Author Contributions

The conceptualisation, study design, writing, review, and draftiing of the original manuscript were undertaken by MBNM. The literature search, synthesis, and editing of the manuscript for important intellectual content were done by PUK. Both authors read and approved the final version of the revised paper and gave consent for its submission and publication.

Declaration of Generative Ai and Ai-Assisted Technologies in Scientific Writing

The authors declare that no generative AI or AI-assisted technologies were used in the writing, editing, data analysis, or production of this manuscript, unless explicitly acknowledged otherwise. Where AI tools were used, such usage was limited to language refinement and formatting assistance under the direct oversight of the authors, who retain full responsibility for the content and integrity of the manuscript.

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All relevant data are available within the manuscript

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Conflict of Interest

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