

# Why High-Functioning Autistic Adolescents Leave Secondary School: Educational Structures, Contributing Mechanisms, Student Voices, and Pathways Toward Retention

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## Abstract

Secondary school disengagement among adolescents with Level 1 Autism Spectrum Disorder (ASD), historically referred to as “high-functioning autism,” represents a significant educational and public health concern. Autistic children and adolescents experience elevated school absence compared with peers, and New Zealand population-level evidence demonstrates reduced likelihood of regular attendance among autistic students [1,4]. Although many autistic students demonstrate average or above-average intellectual ability, withdrawal from schooling may arise less from academic incapacity than from a misalignment between neurodevelopmental needs and educational environments [2,3,5,6,8,9]. This paper synthesises educational, psychological, and medical literature concerning sensory processing, social participation, executive functioning, anxiety, school structures, absenteeism, transition, and cumulative disengagement among autistic adolescents [1-9].

Composite lived-experience narratives are used illustratively to demonstrate recurrent themes in the literature, these are not presented as verbatim participant quotations. A Capability Without Fit construct and the Knox Educational Adaptation Framework (KEAF) are proposed as conceptual and practical responses to autistic school disengagement.

**Keywords:** Autism Spectrum Disorder, School Refusal, Secondary Education, Autistic Burnout, Executive Functioning, School Attendance

## 1. Introduction

Adolescence is a period of substantial educational, neurological, social, and psychological transition. The transition from primary to secondary schooling can introduce significant sociocultural and environmental change for autistic students, including altered routines, new relationships, and increased expectations for independence [8]. Secondary schooling often requires students to navigate multiple teachers, changing classrooms, larger peer networks, complex social expectations, and greater responsibility for organising their own learning. These demands may be especially difficult when educational settings are not adapted to autistic learners’ sensory, social, and executive-functioning profiles [3,5,6,8]. Research indicates that autistic children and adolescents are absent from school more often than their non-autistic peers, and recent Aotearoa New Zealand population-level evidence similarly reports reduced likelihood of regular attendance among autistic students [1,4]. School disengagement should

therefore not be interpreted automatically as low motivation, defiance, or reduced ability. Evidence concerning school refusal, absenteeism, inclusion, sensory processing, and parent-reported schooling barriers suggests that non-attendance may reflect a complex interaction between learner characteristics and school environments [1-3,5,9]. For the purposes of this paper, the term “dropout” is used broadly to include chronic absenteeism, school refusal, progressive disengagement, and eventual withdrawal from formal secondary schooling.

## 2. The Paradox of Capability Without Educational Fit

Many autistic adolescents may demonstrate strong factual knowledge, specialised interests, analytical reasoning, creativity, and areas of advanced ability. However, educational success depends not only on intellectual capacity but also on the fit between the student and the learning environment [3,6]. Secondary schools may implicitly treat academic ability and

adaptive functioning as equivalent. This assumption can obscure support needs in students who appear capable but experience significant difficulty with planning, flexibility, sensory regulation, social navigation, or emotional coping [3-6,9]. The resulting discrepancy creates a paradox: students may be academically capable while simultaneously unable to sustain participation in the ordinary routines and expectations of secondary school.

### 3. Factors Contributing to Secondary School Disengagement

#### 3.1. Sensory Overload

Sensory processing differences are relevant to classroom emotional, behavioural, and educational outcomes in autistic students. Auditory filtering, tactile sensitivity, movement sensitivity, and sensory-seeking or sensory-avoidant patterns may affect attention, behaviour, and academic participation [3]. Secondary schools often contain crowded corridors, fluorescent lighting, assemblies, cafeteria noise, bells, movement, and unpredictable transitions. For some autistic students, repeated exposure to these conditions may contribute to cumulative stress and exhaustion rather than merely temporary discomfort.

#### 3.2. The Hidden Curriculum and Social Participation

Mainstream secondary schooling includes both formal instruction and an extensive hidden curriculum of implicit social rules, peer expectations, humour, sarcasm, group membership, and behavioural norms. Research on inclusion for pupils on the autistic spectrum highlights that mainstream school participation may be shaped by facilitators and barriers at the level of school practice and social environment [5]. Autistic students may therefore experience school as a setting requiring continuous interpretation and performance. When such effort is invisible to adults, students may appear to be coping while accumulating fatigue, anxiety, and social stress [5,8].

#### 3.3. Executive-Function Demands

Secondary education increasingly relies on planning, organisation, task initiation, working memory, flexible shifting between activities, and independent completion of assignments. Research on real-world executive function in autistic children without intellectual disability found age-related worsening in parent-reported initiation, working memory, and organisation of materials across childhood and adolescence [6]. A student may fully understand academic content but struggle to initiate tasks, track deadlines, organise materials, or complete work in the expected format. When these difficulties are interpreted as laziness or non-compliance, shame and disengagement may follow [6,9].

#### 3.4. Anxiety and Mental Health

Anxiety symptoms are common among children and adolescents with ASD, and Reaven emphasises developmental considerations in treating anxiety symptoms in youth with high-functioning ASD [7]. Anxiety may present through avoidance, irritability, exhaustion, somatic complaints, or school refusal. Without appropriate interpretation, distress may be misread as behavioural opposition rather than an indicator of unmet need [2,7,9].

### 3.5. Student Voices: Composite Lived-Experience Narratives

The following narratives are composite illustrations based on recurring themes in the literature on autistic schooling, absenteeism, sensory processing, executive functioning, anxiety, transition, and parent-reported educational barriers. They are not verbatim quotations from research participants [1,3,5-9].

“I Was Tired Before the Day Even Started”

“People thought I hated school. I loved learning. I hated surviving school.”

“Before I even arrived, I was planning every classroom, every teacher, every person, and every possibility.”

“By lunchtime, I felt as though I had already worked a full day.”

“There was simply nothing left.”

“Nobody Saw the Work It Took to Look Normal”

“Teachers said I was coping because I was not causing trouble.”

“But all day I watched how people stood, laughed, and talked.”

“Everyone said I looked fine.”

“Looking fine was the problem.”

“I Understood Everything—Except How School Worked”

“I understood physics.”

“I understood history.”

“I understood calculus.”

“But I forgot deadlines and assignments.”

“Eventually people decided I was not trying.”

“The Hallways Hurt”

“People think pain means injury.”

“For me, it was lights, noise, movement, lockers, conversations, and unpredictability.”

“By Period Three, my body wanted to run.”

“I Did Not Drop Out Overnight”

“People said attendance suddenly collapsed.”

“It was not sudden.”

“It happened gradually, one absence at a time.”

“Eventually, school felt impossible.”

### 4. Capability Without Fit: A Conceptual Framework

The evidence reviewed above suggests that disengagement may occur when visible capability is not matched by educational compatibility. This can be conceptualised as:

#### 4.1. Capability + Environmental Mismatch → Disengagement rather than:

Low Ability → Failure

The Capability Without Fit construct reframes dropout as a possible indicator of systemic mismatch rather than individual deficit. It aligns with findings that school factors, sensory processing, executive functioning, transition demands, and insufficient adaptation can affect attendance and participation [1-3,5,6,8,9].

#### 4.2. Aotearoa New Zealand Context

Aotearoa New Zealand has official inclusive education guidance that provides practical support for teachers and school leaders to recognise, plan for, and meet the needs of diverse learners, including autistic learners [10]. New Zealand education policy and research also recognise neurodiversity within learning support,

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including autism, and identify the need for flexible support for neurodiverse children and young people [11]. Despite this policy emphasis, New Zealand population-level data show that autistic students are less likely to attend school regularly than non-autistic students. Bowden and colleagues reported that, among 654,438 students, 8,427 were identified as autistic, and autism was associated with a significantly decreased likelihood of regular attendance [4]. Students with Level 1 autism may therefore occupy an educational middle ground: they may be viewed as too capable for intensive support while remaining insufficiently supported for sustainable participation [4,9,11].

### 4.3. The Cumulative Burnout Pathway

Disengagement often appears sudden only at the point of crisis. The literature suggests that absenteeism and withdrawal may develop gradually through interacting school, individual, sensory, social, executive-function, and mental-health mechanisms [1-3,6,7,9].

A proposed cumulative pathway is: sensory overload → social exhaustion → anxiety → absenteeism → academic gaps → shame → school refusal → withdrawal.

This pathway should be treated as a conceptual model requiring further empirical testing, rather than as a validated diagnostic sequence.

### 5. Knox Educational Adaptation Framework (KEAF)

The Knox Educational Adaptation Framework proposes five domains of adaptation aimed at improving educational fit for autistic adolescents. These domains are derived conceptually from the reviewed literature and are intended to guide practice and further research [1-11]. Sensory adaptation

- Provide quiet spaces and predictable withdrawal options [3,10].
- Reduce unnecessary sensory load where possible, including avoidable noise, crowding, and unpredictable transitions.
  - a) Executive Support
- Use visual schedules, explicit deadlines, structured routines, and stepwise task instructions [6,10].
- Break larger assignments into manageable components with regular check-ins.
  - b) Social Navigation
- Make implicit expectations explicit and provide supported opportunities for peer connection [5,8,10].
- Create protected social spaces where students can participate without excessive performance demands [5,8,10].
  - c) Mental-Health Integration
- Identify anxiety and distress early and avoid interpreting school refusal solely as oppositional behaviour [2,7,9].
- Coordinate support between family, school staff, and mental-health professionals where appropriate [7,9,10].
  - d) Strength-Based Education
- Develop learning opportunities that connect with students' interests and strengths [10,11].
- Use individualised pathways where standard attendance, assessment, or timetable structures are not sustainable [4,10,11].

### 6. Discussion

This review supports a reconceptualisation of autistic secondary-school disengagement as a multi-level systems problem rather than a primarily student-level failure. Existing school-refusal and non-attendance research demonstrates that school factors, including peer relationships and classroom management, are associated with school refusal- and truancy-related reasons for non-attendance [2]. The autism-specific absenteeism literature extends this position by showing that autistic learners are absent from school more often than their non-autistic peers and that mechanisms leading to and maintaining absenteeism require further study [1]. Aotearoa New Zealand population-level evidence strengthens the argument that attendance disparity is not merely anecdotal: Bowden and colleagues found that autistic students were significantly less likely to attend regularly than non-autistic students in a national cohort [4]. The central contribution of the Capability Without Fit construct is that it distinguishes academic competence from educational sustainability. Sensory-processing evidence shows that classroom emotional, behavioural, and educational outcomes may be affected by sensory processing patterns, while executive-function research shows that real-world difficulties with initiation, working memory, and organisation may increase across adolescence in autistic students without intellectual disability [3,6].

Together, these findings challenge any assumption that high cognitive ability necessarily predicts school persistence. They instead suggest that academic understanding can coexist with reduced capacity to tolerate sensory load, manage organisational demands, or sustain daily participation within conventional secondary-school structures [3,6,9]. The social environment is equally consequential. Humphrey and Lewis show that inclusive education for pupils on the autistic spectrum depends on the practices and conditions of mainstream secondary schools, including both facilitators and barriers to participation [5]. Transition research further indicates that the move from primary to secondary school may involve environmental, social, and organisational change for students with ASD, making the early secondary years a critical period for prevention and adaptation [8]. In this context, disengagement may be better understood as the cumulative outcome of repeated mismatches across sensory, social, organisational, and emotional domains rather than as a discrete behavioural event [1-3,5,6,8,9]. Mental health considerations deepen this interpretation. Anxiety symptoms are prominent in youth with high-functioning ASD, and Reaven highlights the importance of developmental considerations when addressing anxiety in this population [7].

When anxiety is expressed through avoidance, exhaustion, irritability, or school refusal, educational systems may misinterpret distress as unwillingness. Such misinterpretation risks intensifying shame, reducing trust, and delaying environmental adaptation [2,7,9]. Parent-perspective research is particularly important because it identifies schooling barriers that may not be visible in routine academic assessment. Anderson reports parental perspectives linking absenteeism to inadequate educational adaptation and teacher competence regarding autism [9]. This

evidence supports a shift from reactive attendance management toward anticipatory educational design: the relevant question is not only why the student is absent, but what features of the environment make attendance unsustainable [1,2,4,9]. The Knox Educational Adaptation Framework (KEAF) operationalises this shift by translating the literature into five domains of school-level response: sensory adaptation, executive support, social navigation, mental-health integration, and strength-based education [3,5-7,10,11]. These domains are not proposed as isolated accommodations but as interacting components of educational fit. For example, a quiet space without executive support may reduce overload but not assignment failure, executive supports without social protection may improve submission rates while leaving peer-related anxiety unchanged, and mental-health intervention without school adaptation may individualise a problem that is partly environmental [3-7,9].

The high-impact implication is that autistic school dropout should be treated as a sentinel indicator of institutional mismatch. Attendance data, therefore, should not be used only to identify individual risk but also to audit the sensory, social, pedagogical, and support conditions of schools [1,2,4,9,10]. For policy, this reframing aligns with New Zealand inclusive education guidance and neurodiversity-focused learning support priorities, both of which emphasise planning for diverse learning needs and flexible support for neurodiverse learners [10,11]. For research, the Capability Without Fit construct generates testable hypotheses: students with higher mismatch across sensory, executive, social, and mental-health domains should show greater risk of absenteeism and withdrawal than students with comparable cognitive ability but better environmental fit [1,3,6,7,9].

Future work should therefore move beyond documenting attendance disparities toward modelling mechanisms of disengagement, identifying protective school practices, and evaluating whether multi-domain adaptation frameworks such as KEAF improve attendance, wellbeing, academic continuity, and student belonging [1,4,8,10,11].

## 7. Limitations

This paper is theoretical and integrative rather than empirical. It does not present original participant data. The composite narratives are illustrative and should not be interpreted as direct quotations from individual students. Although the New Zealand context is discussed, findings from international literature may not transfer directly to all Aotearoa New Zealand settings. Further work should include systematic review methods, consultation with autistic adolescents, and empirical testing of the proposed models in real school contexts.

## 8. Conclusion

Autistic adolescents may leave secondary education not because they lack ability, but because school environments can become

incompatible with their neurological, sensory, social, executive-functioning, and mental-health needs [1-3,5-7,9]. Dropout should therefore be understood not only as a student-level outcome but also as a signal of educational mismatch. Improving retention requires schools to adapt proactively and systematically to neurodiverse learners [4,10,11]. The Capability Without Fit construct and Knox Educational Adaptation Framework provide a conceptual and practical foundation for reframing autistic school disengagement and strengthening pathways toward retention.

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