

School absenteeism in children and adolescents on the autism spectrum – A scoping review

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Why a scoping review on autism and school absenteeism?

Why autism?

- Recent studies indicated high rates of absenteeism among autistic children
- Important to find specific contextual factors leading to absenteeism in autistic children
- Great demand for interventions targeted to autistic students

Why scoping review?

- Different absence constructs in literature, great heterogeneity and overlap
- Patchy and heterogenous research field, systematic review premature
- Still feasible to cover all aspects of this emerging research field

Aim and eligibility criteria

Aim

To provide a broad overview of all research to date on all forms of absence from school, in children and adolescents on the autism spectrum

Part of a larger project to map the overall literature on school absenteeism in children and adolescents with NDD, including Autism, ADHD, SLD

Eligibility criteria

Population. Children and adolescents with a diagnosis on the autism spectrum as defined by DSM, ICD or validated scale

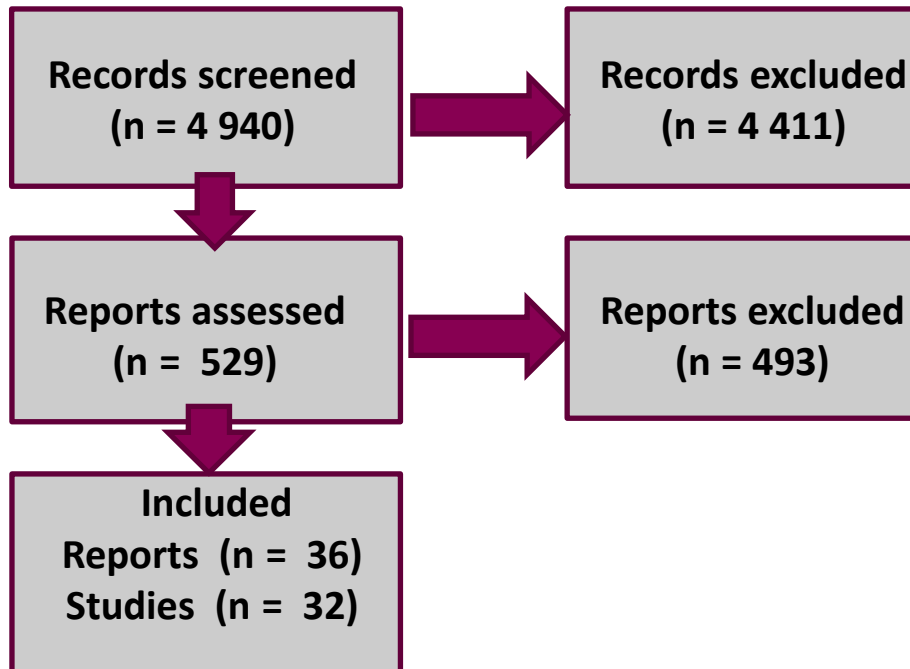
Exposure and outcome. Any form of absenteeism from school up to high school/upper secondary school; collage/university not included

Publication type. Original research papers in peer-reviewed journals

Method

- A search of existing literature by Karolinska Institutet Library (KIB), final update February 17, 2022
- Five databases searched: Cochrane (Wiley), Medline (Ovid), Psychinfo (Ovid), Web of Science Core Collection, and ERIC (ProQuest)
- All references screened independently by two reviewers
- All publications of potential relevance were obtained in full text, and assessed independently by the two reviewers
- Extracted information on study characteristics and quantitative and qualitative data related to school absenteeism
- Results were synthesized narratively in three main themes: occurrence, contextual factors, and detection/interventions

Flow-chart



Study characteristics

- Countries: US 12, UK 8, Japan 6, Australia 2, Sweden 2, Netherlands 1, Norway 1
- Publication years: 1991-2022; most studies (84%) past decade
- Gender: predominantly male participants (range 50-100%)
- Age span: 2-21 years, most studies focused on ages 8-17
- 2 retrospective studies with adults
- 15 studies reported on occurrence (of which 9 population-based samples)

Prevalence in population-based studies

John et al. (2022), Wales (415 000 students):

Chronic absenteeism, all autism: aOR 2.0 (1.9-2.1) Exclusion: aOR 2.6 (2.4-2.9)
Autism +2 or more psychiatric comorbidities: aOR 2.5

Fleming et al. (2020), Scotland (766 000 students):

Absenteeism ASD only: aIRR 1.10 (1.08-1.13) Exclusion: aIRR 1.50 (1.30-1.73)
Absenteeism ASD and depression: aIRR 2.36 (2.01-2.76)

Anderson (2021), Michigan, USA (1 056 000 students, special education):

Chronically absent students, ASD: 19% (general education students 14%)

Hatton (2018), UK (6 000 000 students):

Authorized absence, children with autism: 5%, unauthorized: 1,5%
Persistent absence, children with autism: 17.3%, Exclusions: M=9.6 (contr: 3.1)

Crump et al (2013), US (22 000 students)

Autism associated with low school performance, but not sign. w absenteeism

Population-based, parental report

Black & Zablotsky (2018), US (NHIS, 26 000 children):

Chronic absenteeism, children with autism: 9%, aOR 2.9 (1.59-5.27)

Chronic absenteeism, children with 3 or more NDD: aOR 6.1 (2.92-12.66)

Lee et al. (2008), US (NSCH, 102 000 children):

Absenteeism (due to illness) autism 6-11 years: **29.2%** (controls 7.7%), OR 10.8

Absenteeism (due to illness) autism 12-17 years: **21.2%** (controls 8.3%), OR 5.3

Repeat a grade, autistic children: 6-11 years: 19.8%, 12-17 years: 26.7%

Hughes et al (2021), England, Avon Longitudinal Study (6 100 children):

Autism scores (SCDC) at ages 10 and 13 correlated with school absenteeism at age 14-16

Other samples

Munkhaugen et al. (2017/2019), Norway, mainstream classes:

School refusal behavior: 43% / 53% of students with autism (non autism 7%)

Kurita (1991), Japan, guidance center:

Parent reported school refusal/reluctance: autism 27%

Takara & Kondo (2014) Japan, adult psychiatric patients:

History of school non-attendance: autism 23% (non-autism 4%)

Totsika et al (2020), UK, caregivers *invited* to online survey

Persistent absence: Autism (some also ID) 43%, more authorized absence in ID
Of absence: 43% refusal, 32% authorized, 9% exclusion, no truancy

Anderson (2020), Sweden, *invited* parent members of autism association:

Absenteeism without illness: 47 %

Context – individual factors

- Comorbid mental health conditions like depression and/or anxiety linked to higher risk of school absenteeism in several studies (Adams 2021, Black & Zablotzky 2018, Fleming et al 2020, John et al 2022)
- Autistic boys with emerging school refusal due to bullying had higher levels of separation anxiety (Bitsika, Sharpley et al 2022)
- Co-existing ID: not increased (Kurita 1991), increased (Black&Zablotzky 2018)
- Inverse association between emerging school refusal and psychological resilience in secondary school (Bitsika, Heyne et al 2022)
- Children with school refusal (including those with autism) had lower Health Related Quality of Life (Matsuura et al 2020)
- School absenteeism also associated with increased child age (Adams 2021, Totsika 2020)

Context – bullying

- Frequency of being bullied was clearly associated with emerging school refusal for autistic children (Bitsika et al 2021)
- At least one third of school refusing adolescents (autism and other diagnoses) had experienced bullying. Bullying increased anxiety, leading to school refusal (Brouwer-Borghuis et al. 2019)
- Significant association between bullying and school refusal reported retrospectively by autistic psychiatric out-patients (Ochi et al 2020).
- Students with autism and anxiety/depression more likely to report bullying (also cyber), impacting school attendance (Ashburner et al 2019)
- Students with autism had sign. higher rates in absenteeism, social withdrawal, lack of friendships and bullying (Tani et al., 2012)
- One study found that children with autism, although fewer friends and more bullying, had no more absence than controls (Wainscot et al 2008)

Context – school placement and family

Mainstream education

- US students with autism or ID in general education high school had limited time for instruction and time spent with peers (Feldman et al. 2015)
- UK children with autism in mainstream classes had significantly less physical activity, more time alone at break, fewer friends, and were more likely be bullied (Wainscot et al 2008)
- Attending mainstream school increased risk for persistent non-attendance with 104% for autistic children in UK (Totsika et al 2020)

Family factors

- Australian children with autism missed 6 days of 20; family risk factors were parental unemployment and parental mental health (Adams 2021)
- Non-attendance associated with parental unemployment and not living in two-parent household in UK (Totsika et al 2020)

Detection and understanding of autism specific factors

- A study looking at attendance data for autistic children failed to identify specific predictors of absenteeism; authors propose further work on history of attendance and maladaptive behavior (Jarbou et al 2022)
- The School Refusal Assessment Scale-Revised (SRAS-R) Parent version was evaluated for autistic children; the scale was missing items on factors specific to autistic children, such as sensory environment, autism knowledge, and teacher-child relationships (Adams et al 2021)
- Australian report on school closures during the Covid-19 pandemic illustrated the need of individualized intervention for children with ASD; parents identified mostly negative but also positive impacts of their children's receiving remote/online learning (Simpson and Adams, 2022)

Intervention

- US intensive school-based mental health program, NDD (autism 59%) and comorbidities. Early screening, diagnostic assessment, case management, treatment, collaboration, evidence-based school interventions. Results positive effects on attendance and suspensions (Lambros et al 2016)
- UK school reengagement center: autism, severe non-attendance. Individual assessment, autism-friendly environment, structured teaching, family support; positive effects on attendance, well being (Preece and Howley 2018)
- Dutch alternative educational program for adolescents (62% autism) with school refusal: the LINK. Adapted educational setting, CBT, collaboration. Result: increased attendance and academic results, reduced bullying (Brouwer-Borghuis et al. 2019)
- Swedish qualitative study during/after pilot RCT trial in mainstream upper secondary schools; social skills group training SKOLKONTAKT. Students, teacher and school leaders reported positive effects, including increased attendance (Leifler et al 2022)

Gaps, limitations, and strengths

Gaps and limitations

- No assessment of risk of bias or other quality measurements
- Few large, pop-based studies with quantitative data
- Only high-income countries, majority of male participants
- Different absence types and definitions

Strengths

- Broad overview of all current literature
- Most studies recent, last decade
- Large age-span, mostly 8-17 years
- Good starting point for further research and development of interventions

Conclusion

- School absenteeism is a major problem for autistic children and adolescents
- Both authorized and non-authorized absence, mostly school refusal
- Related factors include co-occurring NDD and poor mental health, also psychosocial factors and child age
- Bullying often associated with school absenteeism and poor mental health
- Placement in mainstream classes may be predisposing to absenteeism
- Successful intervention programs include e.g. early detection, individual assessment, adapted education environment and teaching, CBT, social skills training, family support, collaboration, case management.
- Further research is needed on early detection, identification of autism specific contextual factors and on effective interventions
- Important to use already well-known and validated strategies for education of individuals with autism.

Thank you for listening!

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