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## Supporting the health and wellbeing of trans autistic school-aged youth: a systematic literature review

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### ABSTRACT

**Introduction:** This systematic literature review (SLR) aims to synthesize available research which examines the supports required for trans autistic school-aged youth to improve their mental health, wellbeing, and quality of life. Current literature highlights the need to support this specific school-aged population, but the research that synthesizes the existing limited research is lacking. This SLR brings together existing literature and highlights recommended inclusive interventions, programs, support mechanisms, and protective factors needed to support and promote optimal mental health and wellbeing.

**Methods:** This review followed the 2020 PRISMA Guidelines and included JBI quality appraisal tools of included studies. Three electronic databases were used, with literature search conducted on 18 July 2023. Literature, including book chapters, were assessed against predetermined inclusion and exclusion criteria, with included studies written in English, online full-text availability, peer-reviewed, and reported data relevant to research question. Abstract, full-text review, and quality appraisal were conducted by three independent reviewers to ensure rigor. Findings from included studies were synthesized using thematic analysis.

**Results:** Twenty studies were included for final synthesis with five using qualitative methodologies, two case reports, and 13 cross-sectional studies. The final synthesis comprised five themes, indicating therapy should focus on mental health, particularly internalized feelings and emotions that may lead to suicidal ideation without support, whereas interventions should support executive functioning, communication, and socialization. Clinicians should make adaptations to their clinics and practices to support the neurodivergent-related needs of their clients. Schools should work toward having well-articulated and embedded policies supporting gender affirmation and preventing bullying and ostracization to ensure trans autistic youth develop positive health and wellbeing, and overall good quality of life.

**Conclusions:** In many cases support measures discussed were limited. The complexities of supporting the needs of school-aged trans autistic youth requires further research, specifically focusing on the voices of trans autistic youth.



### KEYWORDS

Autism; health; quality of life; school-aged youth; support; transgender/trans; wellbeing

## Introduction

Research suggests that the rate of people who are transgender (hereafter trans) has increased since 2010, with estimates that between 0.4% and 1.3% of the population are trans (Collin et al., 2016; Meerwijk & Sevelius, 2017; Zucker, 2017). This increase in prevalence is in part a result of the World Professional Association of Transgender Health (WPATH, 2011) formally addressing the

pathological and binary perspective of gender diversity in their Standards of Care (7th ed.; SOC-7). Similar institutional moves to de-pathologize gender identity in both the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; DSM-5; American Psychiatric Association, 2013) and the *International Statistical Classification of Diseases and Related Health Problems* (11th ed.; ICD-11; World Health Organization, 2019) have also contributed to

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the increased prevalence of trans and gender diverse individuals. Trans legal and human rights protections around the world have equally contributed to these increased numbers (ILGA World et al., 2019; O'Connor et al., 2022; Transgender Europa, 2023).

Parallel to this, it is important to note that any statistic may change depending on the terms used to define who is trans (Warrier et al., 2020; Zhang et al., 2020). Zhang et al. (2020) in their systematic review, suggest that a careful expansion of gender diversity definitions to include greater expressive breadth produced an adult trans and gender diverse cohort of up to 4.5%, and children and adolescent trans and gender diverse prevalence as high as 8.4%. Parallel to this, research suggests that the number of people being formally diagnosed with autism has increased significantly over the past two decades. In 2000, 1 in 150 children were diagnosed with Autism Spectrum Disorders and by 2014 the rate was 1 in 60 (Knopf, 2020). The rate increased again by 2016 with 1 in 54 children receiving a diagnosis (Knopf, 2020). Males remain overrepresented in the data with estimates varying from 4:1 in clinical samples (Loomes et al., 2017) to 2:1 for individuals with co-occurring intellectual disability (Yeargin-Allsopp et al., 2003). Further to this, up to 5.4% of children and adolescents with a formal autism diagnosis also identify as trans or gender diverse (Warrier et al., 2020). Indeed, a growing body of work has begun to explore this co-occurrence both from a perspective of lived experience (Cooper et al., 2022) and in the assessment of predictors for mental ill-health (Strang, Anthony, et al., 2023). Studies have examined appropriate supports for autistic children and adolescents (e.g. Coogler et al., 2022) and children and adolescents who are trans (e.g. Hill et al., 2021), however the support needs of youth who are both trans and autistic appear underrepresented in the current literature, as does the literature representing the genuine voices of this community (Strang, van der Miesen, et al., 2023; Strang et al., 2019).

Recent large scale research by Hill et al. (2021) in Australia found that trans youth are more likely to face bullying during their school experience with some figures indicating that 78.9% of trans youth have experienced transphobia at

school, university, or TAFE (Technical and Further Education). These experiences are putting this vulnerable group at greater risk of “wanting to hurt themselves, self-harming, reckless behaviour, suicidal thoughts, suicide attempts, and diagnoses of depression and anxiety than those who had not experienced transphobia” (Hill et al., 2021, p. 51), risks that other scholars have also noted in educational settings (Bartholomaeus & Riggs, 2017a, 2017b). Similarly, autistic youth are also at increased risk of bullying during their educational journey, with some literature indicating that up to 94% of autistic people have experienced some form of bullying during their schooling (Humphrey & Hebron, 2015). It therefore stands to reason that as both trans and autistic communities are at a significantly increased risk of bullying leading to mental health challenges, trans autistic school-aged youth require specific and person-centred supports to meet their needs to ensure optimal mental health, emotional wellbeing, and good quality of life, including in the school context—now and into the future (Hill et al., 2021). As such, this systematic literature review (SLR) seeks to identify the scope of current literature and identify and analyze trends and gaps regarding available and appropriate supports for trans autistic school-aged youth. In this context, school-aged youth suggests children and adolescents who are attending primary, middle, and secondary/high school, and range in ages from five up to 18 years of age.

### **Review question**

As an emerging area of research with most studies published in the last five years, research acknowledges that autism is overrepresented in gender diverse and gender dysphoric population samples (Strang, Anthony, et al., 2023; Strang, van der Miesen, et al., 2023). However, what is not immediately clear in the research is what supports and services are available to ensure that the needs of trans autistic school-aged people are considered, specifically for children and youth who are beginning their gender-affirmation journey. While there currently exist reviews that focus on the intersection of autism and gender diversity (see for example Kallitsounaki &

Williams, 2023), what the present paper adds to the literature is a synthesis of knowledge reflecting the support needs of this specific population and how best support can be offered by service providers. To adequately examine this topic, the following research question was developed with trans and autism rights and health scholars: *What is known about the supports required by trans autistic school-aged youth to improve their mental health, wellbeing, and quality of life?*

## Method

This SLR was conducted using the Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) statement

recommendations 2020 (Page et al., 2021). The protocol for this review was registered with Prospero 2023 (CRD42023437556 with registration link: [https://www.crd.york.ac.uk/prospero/display\\_record.php?ID=CRD42023437556](https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42023437556)). Each stage of the methodology was completed by three independent reviewers, JM, CB, and AB; and when discrepancies arose, they were discussed among the reviewers to reach an agreement. All reviewers identify as scholars working within trans and autism rights and health discourses, and all three were integral to the review process from protocol development to the final draft and authorship of the manuscript. The results of the search and progression of screening for the research question is displayed in Figure 1.

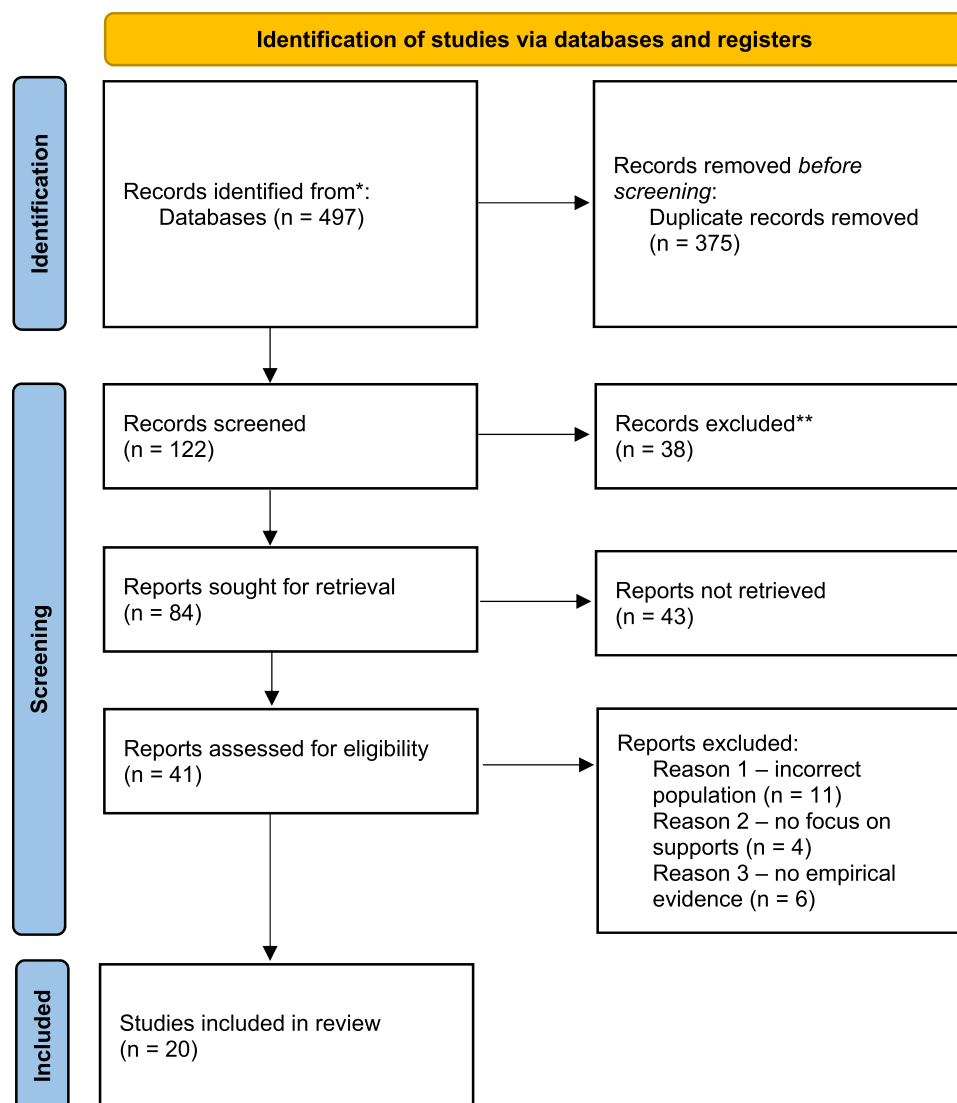


Figure 1. PRISMA flow diagram of review search for research question.

### Eligibility criteria

To be included in the review the articles had to have thematic relevance, as determined by the eligibility criteria: (1) a focus on the supports or impacts on wellbeing of school-aged children, adolescents, and young people who are both trans and autistic; (2) the articles were required to be written in English with no restrictions based on publication year; and (3) in addition to peer reviewed journal articles, the review included book chapters and other articles that presented perspectives of key stakeholders including clinicians, parents and carers, trans and autistic people, and those working in caring/helping professions. Literature reviews, theses, magazine and newspaper columns, editorials and conference proceedings were all excluded from this review.

### Search strategy

A comprehensive search strategy was developed utilizing preliminary searches to trial and adapt the search terms to maximize relevant results (see Table 1). The following electronic databases were used: EBSCOhost Megafile Ultimate, PubMed and the University of Southern Queensland's library database. The literature searches were all conducted on 18 July 2023.

### Screening

A three-phase article screening process was used in this review (see Figure 1); first, screen to identify and remove duplicate articles; second, screen the title and abstract; and last, pursue a full-text screening of the included studies (Booth et al., 2019; Page et al., 2021). Duplicate articles were identified and removed in EndNote and manually

by the first author in the first initial screen of the database records, which provided 122 articles. All authors independently reviewed titles and abstracts of the 122 articles against the aforementioned inclusion and exclusion criteria before discussing and reaching agreement on a list of 84 records for retrieval, and in the end agreeing on bringing 41 articles forward into the full-text review phase. Forty-one articles were taken through to round three for consideration in the review. These full-text articles were independently reviewed by all authors. All authors confirmed eligibility for inclusion of the final 20 articles in the review, and the reasons for exclusion of the 21 articles which were not deemed to meet the set inclusion criteria.

### Quality appraisal

To determine the quality of included studies they were assessed utilizing the Joanna Briggs Institute (JBI) appraisal tools for qualitative studies, cross-sectional studies, and case reports (Joanna Briggs Institute, 2020). This approach is consistent with the methodology of SLRs, allowing for an explicit consideration of the risk of bias in the included studies, while also allowing for all relevant literature to be included in the comprehensive review. Quality appraisals were independently completed by all three authors for each of the final articles selected for inclusion. Agreed individual review scores for each study are included in the results section (see Table 2). As can be seen in Table 2, most of the studies were of excellent quality with modest scoring for quality (6/8) given to only three papers (Lehmann et al., 2020; Russell et al., 2021; Shumer et al., 2016). No studies were excluded based on quality appraisal.

### Strategy for data synthesis

This study was heterogenous and included diverse study populations, methodologies, interventions, stages of treatment, and trial conduct meaning that meta-analysis was not feasible (Shamseer et al., 2015). Instead, drawing upon thematic analysis (Braun & Clarke, 2019) the findings of included studies are reported as a systematic

**Table 1.** Search strategy.

Database	Search terms
EBSCOhost Megafile Ultimate	(neurodiverg* OR autistic* OR Asperger*) AND (child* OR teenager* OR adolescen* OR youth OR "young people") AND (transgender)
PubMed	(neurodiverg* OR autistic* OR Asperger*) AND (child* OR teenager* OR adolescen* OR youth OR "young people") AND (transgender)
University of Southern Queensland library database	(neurodiverg* OR autistic* OR Asperger*) AND (child* OR teenager* OR adolescen* OR youth OR "young people") AND (transgender)

**Table 2.** Characteristics of reviewed studies.

Reference	Country	Design and Quality	Sample	Key findings
Cooper, K., Butler, C., Russell, A., & Mandy, W. (2023). The lived experience of gender dysphoria in autistic young people: a phenomenological study with young people and their parents. <i>European Child &amp; Adolescent Psychiatry</i> , 32(9), 1655-1666. <a href="https://doi.org/10.1007/s00787-022-01979-8">https://doi.org/10.1007/s00787-022-01979-8</a>	UK	Qualitative – multi-perspectival interpretative phenomenological (IPA) analysis design, in-depth interviews 10/10	15 autistic people aged 13–17 years and their parents	<ul style="list-style-type: none"> <li>Parental support is important to psychological well-being of gender diverse young people - protective factor.</li> <li>Preference is for clinical support groups for both autistic and gender needs, particularly fostering social connections with other gender diverse autistic young people and supporting parents.</li> <li>Young people and their parents described the need for gender and mental healthcare to be adapted to meet their needs as autistic and gender diverse young people.</li> <li>Support needed to assist difficulties communicating and connecting with gender clinicians - self-described clashes of communication styles were common.</li> <li>Post-diagnostic support groups are needed to help young people make sense of their autism diagnoses.</li> <li>Consideration needed for the practicalities and physical environments of clinics - adaptations needed such for sensory support such as having a quiet waiting area, and considering lighting, noise and temperature as well as having a consistent clinician and local clinic.</li> </ul>
Cooper, K., Mandy, W., Russell, A., & Butler, C. (2023). Healthcare clinician perspectives on the intersection of autism and gender dysphoria. <i>Autism</i> , 27(1), 31-42. <a href="https://doi.org/10.1177/13623613221080315">https://doi.org/10.1177/13623613221080315</a>	UK	Qualitative – Interpretative Phenomenological Analysis (IPA) 10/10	16 clinicians from range of professional backgrounds and clinical settings – 8 work with adults, and 8 work with adolescents	<p>Clinicians should:</p> <ul style="list-style-type: none"> <li>Change communication style by not expecting immediate answers (give take up time).</li> <li>Increase use of written and visual resources including videos, charts, pros and cons lists, tables, diagrams, and gender maps to explore gender in more detail.</li> <li>Adapt the clinical setting - consider short initial introduction session, structural changes to length, frequency, number of sessions, ordering the agenda of sessions to not overwhelm patients.</li> <li>Consider the sensory aspects of the physical environment including the waiting area and toilets.</li> <li>Receive training on autism adaptations and the intersection of autism and gender dysphoria.</li> <li>Focus on understanding what is causing the patient distress on an individual basis and support those needs.</li> </ul>
Corbett, B. A., Muscatello, R. A., Klemencic, M. E., West, M., Kim, A., & Strang, J. F. (2023). Greater gender diversity among autistic children by self-report and parent-report. <i>Autism</i> , 27(1), 158-172. <a href="https://doi.org/10.1177/13623613221085337">https://doi.org/10.1177/13623613221085337</a>	USA	Cross-sectional 8/8	140 autistic and 104 non-autistic children aged 10-13 years	<p>Interventions should include:</p> <ul style="list-style-type: none"> <li>Many autistic trans youth experience anxiety and depression, rate exceeds general population.</li> <li>Therapy to identify the impact of daily experiences on health and wellbeing, attempting to improve understanding of sources for and risk factors of emotional distress.</li> <li>Social communication and self-advocacy skills - neurodiversity may complicate or magnify challenges with gender discernment and advocacy.</li> <li>Training in psychosexual education that includes information about gender expression and gender identity diversity. Tackling Teenage Training is a commercial program specifically designed for autistic adolescents.</li> <li>An individual approach is most effective, particularly when support services consider the rigid and concrete thinking around gender roles and difficulty developing aspects of personal identity.</li> <li>It is important to address the broader traits that are similar to the characteristics of autism when supporting gender dysphoric children and adolescents as a full autism diagnosis will not always be applicable.</li> </ul>
de Vries, A. L., Noens, I. L., Cohen-Kettenis, P. T., van Berckelaer-Onnes, I. A., & Doreleijers, T. A. (2010). Autism Spectrum Disorders in Gender Dysphoric Children and Adolescents. <i>Journal of Autism Developmental Disorders</i> , 40, 930-936. <a href="https://doi.org/10.1007/s10803-010-0935-9">https://doi.org/10.1007/s10803-010-0935-9</a>	The Netherlands	Cross-sectional 7/8	204 children and adolescents	

(Continued)

Table 2. Continued.

Reference	Country	Design and Quality	Sample	Key findings
Greenspan, S. B., Carr, S., Woodman, A. C., Cannava, A., & Li, Y. (2023). Identified protective factors to support psychological well-being among gender diverse autistic youth. <i>Journal of LGBT Youth</i> , 20(2), 407-440. <a href="https://doi.org/10.1080/19361653.2022.2119188">https://doi.org/10.1080/19361653.2022.2119188</a>	USA	Cross-sectional 8/8	31 children 13-17 years	<ul style="list-style-type: none"> <li>LGBTQ Inclusive programs, policies and interventions in schools including access to safe and supportive spaces.</li> <li>EF support including, breaking down abstractions, avoid 'dense' questions, avoid idiomatic language, use social narratives, structured self-management strategies.</li> <li>Connectedness with friends, family, and the community - this correlated with well-being and life satisfaction.</li> <li>Free or low-cost services that provides gender affirming healthcare, including medical care, is crucial whenever possible.</li> <li>Targeted interventions to enhance social skills and peer relationships, social cognition, and social communication may support autistic youth in schools.</li> <li>Higher rates of psychological distress – mental health support needed</li> <li>Contextual factors may contribute to distress in individuals experiencing gender dysmorphia: stigma, discrimination, socioeconomic status, peer relationships, family stress, adverse childhood experiences, and insecure attachment. Individual stressors should be sought so support can be applied.</li> <li>Findings highlight both the need to consider the contextual factors and the awareness of increased rate of co-occurring neurodevelopmental disorders to shape the assessment and treatment planning of individuals experiencing gender dysphoria.</li> </ul>
Hilton, M. N., Boulton, K. A., Kozłowska, K., & McClure, G. (2022). The co-occurrence of neurodevelopmental disorders in gender dysphoria: Characteristics within a pediatric treatment-seeking cohort and factors that predict distress pertaining to gender. <i>Journal of Psychiatric Research</i> , 149, 281-286. <a href="https://doi.org/10.1016/j.jpsychires.2022.02.018">https://doi.org/10.1016/j.jpsychires.2022.02.018</a>	Australia	Cross-sectional 8/8	64 children (mean age 12.91 years)	<ul style="list-style-type: none"> <li>Individuals may have intolerance of ambiguity, cognitive rigidity, difficulty articulating gender, persistent deficits in social communication and interaction - in client-centred treatment, clinicians need to be flexible and adapt techniques/strategies to work within the clients' framework and conversation styles to help them navigate the real world and guide the limited understandings they may have.</li> <li>The clinician should meet the client where they are at and guide them through treatment at their own pace – individuals must understand options and have support to integrate changes into their sense of self.</li> <li>Individuals may have decreased understanding of Theory of Mind – conversation styles should be matched in clinical settings but discussions about social awareness and thoughts and feelings of others should occur</li> <li>Personalised treatment plans that consider the social, cognitive, and developmental pathways ensure that individuals with ASD are able to maintain their autonomy and have equal access to gender-related care.</li> <li>Screening for Autism should be a consideration given the increased prevalence of GV and ASD co-occurring, but practitioners need to be careful not to infer a direct relationship with their patient.</li> </ul>
Jacobs, L. A., Rachlin, K., Erickson-Schroth, L., & Janssen, A. (2014). Gender dysphoria and co-occurring autism spectrum disorders: Review, case examples, and treatment considerations. <i>LGBT Health</i> , 2(00), 1-6. <a href="https://doi.org/10.1089/lgbt.2013.0045">https://doi.org/10.1089/lgbt.2013.0045</a>	USA	Case Report 8/8	2 cases – one autistic trans youth and one autistic trans adult	<ul style="list-style-type: none"> <li>Establishing preventative programs, policies and supportive systems in schools and the media concerning bullying and stigmatization.</li> <li>Counseling in multidisciplinary centers: psychological guidance units in schools, counseling centers, social-workers and psychiatry clinics can prevent difficulties in social interaction and improve quality of life.</li> <li>Family therapy and individual psychotherapy should occur in conjunction.</li> </ul>
Janssen, A., Huang, H., & Duncan, C. (2016). Gender Variance Among Youth with Autism Spectrum Disorders: A Retrospective Chart Review. <i>Transgender Health</i> , 1(1), 63-68. <a href="https://doi.org/10.1089/trgh.2015.0007">https://doi.org/10.1089/trgh.2015.0007</a>	USA	Cross-sectional – retrospective chart review 7/8	492 children	
Kahraman, K. B., Topcu, Z., Yavuz, D., Direnc, E., & Erdogdu, A. B. (2021). Autistic traits, emotional recognition and empathy in adolescents with gender dysphoria. <i>Dusunen Adam The Journal of Psychiatry and Neurological Sciences</i> , 34, 329-336. <a href="https://doi.org/10.14744/DAJPNS.2021.00155">https://doi.org/10.14744/DAJPNS.2021.00155</a>	Türkiye	Cross-sectional 8/8	36 adolescents: 17 case group, 17 control	

(Continued)

Table 2. Continued.

Reference	Country	Design and Quality	Sample	Key findings
Kuvalanka, K. A., Mahan, D. J., McGuire, J. K., & Hoffman, T. K. (2018). Perspectives of Mothers of Transgender and Gender-Nonconforming Children with Autism Spectrum Disorder. <i>Journal of Homosexuality</i> , 65(9), 1167-1189. <a href="https://doi.org/10.1080/00918369.2017.1406221">https://doi.org/10.1080/00918369.2017.1406221</a>	USA	Qualitative – Open-ended interviews 8/10	3 Mothers of trans and autistic children	<ul style="list-style-type: none"> <li>Parents may need education about the co-occurrence of autism and GD and the ways in which ASD may influence youth's expression of gender nonconformity.</li> <li>Supportive parents of TGNC youth may advocate for schools and communities to increase awareness and inclusion, enhance support systems and implement appropriate accommodations to meet the needs of GD and ASD children and their families.</li> <li>Medication can help calm some of social anxiety and ASD behaviors.</li> <li>Clinicians, teachers, and others working with TGNC/ASD youth could assist these children in gaining awareness of social situations and cues that could escalate situations, as well as role-play responses and actions that can help facilitate positive social interactions.</li> <li>Clinicians and other professionals can help parents to accept their child's developmental processes, while critically evaluating their own feelings about their child's gender identity and expression.</li> <li>Online TGNC-related resources may provide opportunities for social communication without the challenges that face-to-face interactions may produce.</li> <li>Individuals need additional social skills training to develop empathy.</li> <li>Gender clinicians need the skills to recognize and screen for autism traits.</li> <li>Future pathway aspirations - individuals should be able to access autism specific services alongside their gender affirming treatments, including gender affirming medical care.</li> </ul>
Lehmann, K., Rosato, M., McKenna, H., & Leavey, G. (2020). Autism trait prevalence in treatment seeking adolescents and adults attending specialist gender services. <i>European Psychiatry</i> , 63(1), 1–8. <a href="https://doi.org/10.1192/j.eurpsy.2020.23">https://doi.org/10.1192/j.eurpsy.2020.23</a>	Northern Ireland	Cross-sectional 6/8	123 individuals (38 adolescents and 69 adults) currently attending or who previously attended specialist gender services	<ul style="list-style-type: none"> <li>Services working with gender diverse young people should screen for ASD, and also provide pathways to appropriate care for the commonly associated mental health difficulties especially internalizing disorders.</li> <li>If hormone treatment is commenced, it should be introduced gradually – often hypersensitivity to sensory inputs and changes in routine are challenging.</li> <li>Awareness of other co-occurring difficulties and/or disorders that may be present in this subgroup are also critical considerations that can help inform clinical decision-making and improve quality of life outcomes.</li> <li>It is crucial that there is sufficient education amongst health providers working with GD young people, particularly related to current guidelines and psychological support with co-occurring ASD and their families (lower rates of parental support commonly seen).</li> <li>Support is needed for difficulties with communication, cognitive flexibility, organization, and future planning.</li> <li>Ongoing psychosocial support is needed for adolescents accessing specialist gender services – most participants scored highly on restrictive and repetitive behavior and interests subtests.</li> <li>Increasing the likeness to identified gender may lead to improved wellbeing and relationships – gonadotropin-releasing hormone analogues (GnRHa) should be considered in early puberty.</li> <li>Features associated with autism spectrum need to be screened early in the referral process so needs can be supported.</li> <li>Additional investigations that are accessed promptly may improve an individual's ability to communicate and think about their gender needs.</li> </ul>
Mahfouda, S., Panos, C., Whitehouse, A. J., Thomas, C. S., Mayber, M., Strauss, P., Zepf, F. D., O'Donovan, A., van Hall, H-W., Saunders, L. A., Moore, J. K., & Lin, A. (2019). Mental Health Correlates of Autism Spectrum Disorder in Gender Diverse Young People: Evidence from a Specialized Child and Adolescent Gender Clinic in Australia. <i>Journal of Clinical Medical</i> , 8, 1503-1517. <a href="https://doi.org/10.3390/jcm8101503">https://doi.org/10.3390/jcm8101503</a>	Australia	Cross-sectional - Retrospective chart review 8/8	104 youth (mean age 14.62 years)	<ul style="list-style-type: none"> <li>Support is needed for difficulties with communication, cognitive flexibility, organization, and future planning.</li> <li>Ongoing psychosocial support is needed for adolescents accessing specialist gender services – most participants scored highly on restrictive and repetitive behavior and interests subtests.</li> <li>Increasing the likeness to identified gender may lead to improved wellbeing and relationships – gonadotropin-releasing hormone analogues (GnRHa) should be considered in early puberty.</li> <li>Features associated with autism spectrum need to be screened early in the referral process so needs can be supported.</li> <li>Additional investigations that are accessed promptly may improve an individual's ability to communicate and think about their gender needs.</li> </ul>
Russell, I., Pearson, B., & Masic, U. (2021). A Longitudinal Study of Features Associated with Autism Spectrum in Clinic Referred, Gender Diverse Adolescents Accessing Puberty Suppression Treatment. <i>Journal of Autism and Developmental Disorders</i> , 51, 2068–2076. <a href="https://doi.org/10.1007/s10803-020-04698-8">https://doi.org/10.1007/s10803-020-04698-8</a>	UK	Cross sectional/longitudinal 6/8	122 youth (mean age 13.6 years)	<ul style="list-style-type: none"> <li>Support is needed for difficulties with communication, cognitive flexibility, organization, and future planning.</li> <li>Ongoing psychosocial support is needed for adolescents accessing specialist gender services – most participants scored highly on restrictive and repetitive behavior and interests subtests.</li> <li>Increasing the likeness to identified gender may lead to improved wellbeing and relationships – gonadotropin-releasing hormone analogues (GnRHa) should be considered in early puberty.</li> <li>Features associated with autism spectrum need to be screened early in the referral process so needs can be supported.</li> <li>Additional investigations that are accessed promptly may improve an individual's ability to communicate and think about their gender needs.</li> </ul>

(Continued)



Table 2. Continued.

Reference	Country	Design and Quality	Sample	Key findings
Shumer, D. E., Reisner, S. L., Edwards-Leeper, L., & Tishelman, A. (2016). Evaluation of Asperger Syndrome in Youth Presenting to a Gender Dysphoria Clinic. <i>LGBT Health</i> , 3(5), 387-390. <a href="https://doi.org/10.1089/lgbt.2015.0070">https://doi.org/10.1089/lgbt.2015.0070</a>	USA	Cross-sectional study - retrospective chart review 6/8	39 patients 8-20 years	<ul style="list-style-type: none"> <li>Anxiety, depression, suicidality seen at an increased rate in gender clinics - psychological monitoring needed</li> <li>ASD screening should be included as part of comprehensive gender assessments.</li> <li>A patient with ASD and GD may require specialized interventions that focus on the unique social challenges during hormonal and social transition to their affirmed gender.</li> <li>To reduce any risk of misclassifying GD with ASD patients, thorough attention to the range of symptoms during ASD diagnostic evaluation in youth presenting for gender dysphoria is needed.</li> <li>Nearly all participants stressed the importance of living as their affirmed gender and having the required medical support - many linking affirming gender to an improvement in mental health.</li> <li>Schools need to be a gender-accepting setting, a safe space to affirm gender publicly. Inclusion and bullying policies must be considered.</li> <li>Majority reported worry about bias and harassment which made exploring and expressing gender uncomfortable.</li> <li>Some felt affirmed gender was questioned because of their autism - 'not heard' by clinicians.</li> <li>Many separated autism-related characteristics and felt they were more difficult to navigate than gender.</li> <li>Due to communication and executive functioning challenges many need support with self-advocacy and navigating the complexities of gender affirmation.</li> <li>Therapeutic techniques should be combined to incorporate gender and ASD support including executive function, self- and social-awareness.</li> <li>Interventions and development of social, executive and flexible thinking skills are among the most important targets related to neurodiverse individuals.</li> <li>Connecting with other autistic/neurodiverse-gender-diverse youth, gender-diverse role models and the use of concrete language can reduce the ambiguity of abstract gender-related concepts (access to online connections and support for rural families also needs to be available).</li> <li>Providing a safe space for autistic/neurodiverse-gender-diverse youth to flexibly explore a range of gender paths and other gender-related supports and teaching are important.</li> <li>Emphasized the importance of also providing support to parents to support their psychoeducational and emotional needs.</li> <li>It is important that a range of learning, experiences to support autistic/neurodiverse-gender-diverse adolescents, modeling flexibility and openness to explore gender no matter where their gender journey ultimately leads.</li> <li>Individuals with autism and GD may have EF dysregulation, improving EF may improve overall wellbeing.</li> <li>EF support should include: <ul style="list-style-type: none"> <li>Skill monitoring, individualized supports may support mental health by reducing the EF load, allowing individuals to focus on other areas.</li> <li>Interventions that reduce internalizing of thoughts.</li> <li>Additional structures, routines, reminders, organizational supports, planning tools, structured step by-step explanations including how to navigate gender care systems, and supports for self-regulation.</li> </ul> </li> <li>School-based gender-affirming supports needed include use of correct name and pronouns, gender-affirmed inclusion in extracurriculars/sports, EF accommodations and supports for learning when needed.</li> <li>Family-based EF supports can be helpful given the additional demands related to supporting gender-diverse child such as coordinating gender affirming medical care, navigating gender diversity within the family, support around gender minority stressors.</li> </ul>
Strang, J. F., Powers, M. D., Knauss, M., Sibarium, E., Leibowitz, S., Kenworthy, L., Sadikova, E., Wyss, S., Willing, L., Caplan, R., Pervez, N., Nowak, J., Gohari, D., Gomez-lobo, V., Call, D., & Anthony, L. G. (2018). "They Thought It Was an Obsession": Trajectories and Perspectives of Autistic Transgender and Gender-Diverse Adolescents. <i>Journal of Autism and Developmental Disorders</i> , 48, 4039-4055. <a href="https://doi.org/10.1007/s10803-018-3723-6">https://doi.org/10.1007/s10803-018-3723-6</a>	USA	Qualitative - Semi-structured Interview 10/10	22 autistic TGD adolescents, 14 TGD women, 6 TGD men	
Strang, J. F., Knauss, M., van der Miesen, A., McGuire, J. K., Kenworthy, L., Caplan, R., .. Anthony, L. G. (2021). A Clinical Program for Transgender and Gender-Diverse Neurodiverse/Autistic Adolescents Developed through Community-Based Participatory Design. <i>Journal of Clinical Child &amp; Adolescent Psychology</i> , 50(6), 730-745. <a href="https://doi.org/10.1080/15374416.2020.1731817">https://doi.org/10.1080/15374416.2020.1731817</a>	USA	Qualitative - multi-stage community-based participatory procedure 10/10	20 ND/GD youth, 33 parents 29 youth, 44 parents	
Strang, J. F., Chen, D., Nelson, E., Leibowitz, S. F., Nahata, L., Anthony, L. G., Song, A., Grannis, C., Graham, E., Henise, S., Vilain, E., Sadikova, E., Freeman, A., Pugliese, C., Khawaja, A., Maisashvili, T., Mancilla, M., & Kenworthy, L. (2022). Transgender Youth Executive Functioning: Relationships with Anxiety Symptoms, Autism Spectrum Disorder, and Gender-Affirming Medical Treatment Status. <i>Child psychiatry and human development</i> , 53(6), 1252-1265. <a href="https://doi.org/10.1007/s10578-021-01195-6">https://doi.org/10.1007/s10578-021-01195-6</a>	USA	Cross-sectional 8/8	124 TGD aged 11-21 years old	

(Continued)

Table 2. Continued.

Reference	Country	Design and Quality	Sample	Key findings
Strang, J. F., Anthony, L. G., Song, A., Lai, M.-C., Knauss, M., Sadikova, E., Graham, E., Zaks, Z., Wimmis, H., Willing, L., Call, D., Mancilla, M., Shakin, S., Vilain, E., Kim, D.-Y., Maisashvili, T., Khawaja, A., & Kenworthy, L. (2023). In Addition to Stigma: Cognitive and Autism-Related Predictors of Mental Health in Transgender Adolescents. <i>Journal of clinical child and adolescent psychology</i> , 2, 212-229. <a href="https://doi.org/10.1080/15374416.2021.1916940">https://doi.org/10.1080/15374416.2021.1916940</a>	USA	Cross-sectional 8/8	93 adolescents aged 13–21, evenly divided between autistic-transgender, autistic-cisgender, and allistic-transgender groups	<ul style="list-style-type: none"> <li>• 39% of TGD/ASD youth reported self-harming behaviors. TGD/ASD women (AMAB) greatest reported suicidality – monitoring</li> <li>• Connecting with gender-related mentors and other adult role models could reduce the EF load of social interactions in health-care settings.</li> <li>• The use of concrete approaches and resource can help transgender neurodiverse youth process and organize clinical information and reduce the experience of EF-related barriers to advancing one's gender needs and goals.</li> <li>• Pre-rehearsed scripts for interacting with gender-care providers, and an online health portal summarizing session visits could decrease EF load and improve wellbeing.</li> </ul>
van der Miesen, A. I., Hurley, H., Bal, A. M., & de Vries, A. L. (2018). Prevalence of the Wish to be of the Opposite Gender in Adolescents and Adults with Autism Spectrum Disorder. <i>Archives of Sexual Behavior</i> , 47, 2307-2317. <a href="https://doi.org/10.1007/s10508-018-1218-3">https://doi.org/10.1007/s10508-018-1218-3</a>	The Netherlands	Cross-sectional 8/8	573 adolescents (469 AMAB and 104 AFAB) and 807 adults (616 AMAB and 191 AFAB) with GV	<ul style="list-style-type: none"> <li>• Clinicians working with individuals referred for GD as well as for ASD should pay attention to this possible co-occurrence – directs individual supports including support for common self-destructive behaviors and suicidal risk.</li> <li>• Although the wish to be of the opposite gender is not the same as a clinical diagnosis of GD, this is relevant for clinical practice because clinicians working with clients with ASD should be aware of the possible co-occurrence when a wish to be of the opposite gender is expressed or endorsed in self-report measures.</li> <li>• The assessment and treatment of GD should be multidisciplinary, longitudinal, and individualized.</li> </ul>
Zupanic, S., Kruljac, I., Šoštarić Zvonar, M., & Drobnić Radobuljac, M. (2021). Case Report: Adolescent With Autism and Gender Dysphoria. <i>Frontiers in Psychology</i> , 12(671448), 1-8. <a href="https://doi.org/10.3389/fpsyg.2021.671448">https://doi.org/10.3389/fpsyg.2021.671448</a>	Slovenia	Case report 7/8	One 16.5 AFAB youth with GD	<ul style="list-style-type: none"> <li>• MH clinicians should directly assess GD, provide family counseling and supportive psychotherapy to reduce distress expressed by the client, reducing additional distress related to the GD and any other coexisting mental health concerns.</li> <li>• Thinking about future pathways for the client should be the main rule to guide decision-making during assessment and treatment procedures.</li> <li>• Clinicians should provide individuals with GD and their families with information and referral for peer support.</li> <li>• Having supportive parents is a significant protective factor – family therapy may be needed.</li> <li>• Assessment protocol should take into account: cognitive skills, communication skills, emotional functioning, social cognition, and capacity for self-advocacy, structured interview to assess the intensity and pervasiveness of GD and an additional report from outside sources (parents).</li> <li>• Assessment protocol should be followed by a treatment checklist: putting together the clinical team, providing psychoeducation.</li> <li>• Two key clinical questions should be answered before medical transition: (1) Is the GD clear, urgent, pervasive, and persistent over time? (2) Does GD increase or decrease with intervention?</li> </ul>

Acronyms and abbreviations used in Table 2 are as follows: AMAB=assigned male at birth; ASD = autism spectrum disorder; EF = executive functioning; GV = gender variance; GD = gender dysphoria; TGD = transgender and gender diverse; TGNC = transgender and gender-nonconforming.

narrative synthesis, which is consistent with PRISMA preferred reporting criteria (Shamseer et al., 2015). Thematic analysis was drawn upon in “generating” and “defining” themes (Braun & Clarke, 2019, p. 593) within the papers selected for final inclusion. More specifically, Braun and Clarke (2019) encourage scholars to make use of their revised six-step guide<sup>1</sup> when engaging in thematic analysis. The six-phases were “applied flexibly” to capture the “uniting idea” for each theme (Braun & Clarke, 2019) and discussed and agreed by all three authors. For the purpose of this SLR, we focused on connecting and interpreting the information within the studies, extracting the information in a meaningful way. This synthesis does not compare and contrast the findings, where differences are explored, rather a synthesis of findings is at focus for this SLR.

## Results

Table 2 summarizes the findings of the data synthesis. Twenty studies were included in the final selection for review. While the searches were not restricted by country, only one country represented the Southern Hemisphere, while six countries represented the Northern Hemisphere. Ten studies were conducted in the United States of America (USA), two in Australia, two in the Netherlands, three in the United Kingdom (UK), one in Northern Ireland, one in Slovenia, and one in Türkiye (see Table 2). Five studies were qualitative in methodology, 13 were cross-sectional, and two studies employed case report design. When exploring what is known about the supports required by trans autistic school-aged youth to improve their mental health, wellbeing, and quality of life, 16 studies drew on children and/or adolescents only, two studies on adolescents and their parents, one on parents, and one on clinicians.

## Findings

As can be seen in Table 2, findings highlight the increased risk of mental health concerns for individuals, especially internalized disorders such as anxiety and depression. Findings also highlight that suicidal ideation and suicide attempts have a

much higher frequency of occurring in trans autistic youth and may also become prevalent earlier in life than when compared with their similar aged cisgender and non-autistic peers. Thematic analysis identified a pattern in recommendations for support as being integral to trans autistic youth’s positive health, wellbeing, and overall quality of life. These were: (1) clinical adaptation; (2) thinking and communicating about gender; (3) executive functioning support; (4) school support; and, (5) socialization support. These topics are further considered below.

### *Clinical adaptations*

Three studies explored the topic of clinical adaptation (Cooper, Butler, et al., 2023; Mahfouda et al., 2019; Zupanič et al., 2021). More specifically, Cooper, Butler, et al. (2023) found that clinical environments can be challenging for autistic trans individuals as they are often loud, bright, busy environments, and depending on their size, involve interaction with an overwhelming number of new people and staff members, each with their own unique sensory outputs. Cooper, Butler, et al. (2023) illustrate this with the help of the following trans autistic youth’s first-hand experiences, “It’s probably enhanced it a bit ‘cause I get sensory overload quite easily. When all my sensory stuff is heightened, I notice my body a lot more and I’m not able to take myself away from it and rationalise it” (Cooper, Butler, et al., 2023, p. 1660). Furthermore, as sensory overload impacts an individual’s ability to focus and concentrate due to the overwhelming competing senses (Mahfouda et al., 2019), it stands to reason that for the most beneficial therapeutic interventions to occur, sensory considerations must be made. Adjustments to lighting, smell, noise, and limiting the number of interactions with people can assist trans autistic individuals to stay regulated and engage more positively with supports. Cooper, Butler, et al. (2023) further urge clinicians to consider the physical environment of not just their examination/therapy rooms but to consider the whole sensory experience from entry, to waiting rooms, and bathrooms.

In addition to sensory considerations, Cooper, Butler, et al. (2023) found that clinicians should

also put considered effort into adapting their clinical sessions to suit the needs of trans autistic youth in order to be more neuro-inclusive and positive in their gender affirmations. For example, many autistic youths may take longer to develop rapport with clinicians than their non-autistic peers. Furthermore, many autistic children and adolescents work best in established routines with clear understanding of what is to occur (Zupanič et al., 2021). Cooper, Butler, et al. (2023) suggest that it would therefore be beneficial for clinicians to change their appointment structure and initially offer a short introductory appointment where they can introduce themselves and key staff and explain processes without the appointment being too overwhelming (Cooper, Butler, et al., 2023). It is further suggested that shortened appointment and session lengths might work better for some individuals and should be considered if they are struggling to process information (Cooper, Butler, et al., 2023). In an effort to work with the often logical and linear learning styles of autistic trans children and adolescents it may also be helpful to structure sessions with an agenda that can be tracked and followed, providing an opportunity for individuals to find out what will be discussed ahead of time (Cooper, Butler, et al., 2023). Trans autistic youth may also require time and support to process and communicate what they are thinking about gender, as findings show some thought patterns which differ to cisgender and non-autistic peers were evident.

### ***Thinking and communicating about gender***

Ten studies explored the topic of thinking and communicating about gender (Corbett et al., 2023; de Vries et al., 2010; Greenspan et al., 2023; Hilton et al., 2022; Jacobs et al., 2014; Janssen et al., 2016; Russell et al., 2021; Strang et al., 2018; 2022; van der Miesen et al., 2018). The review suggested that by the age of 9–11-months typically developing infants can discriminate faces and voices by the person's sex and continue to progress toward gender constancy which is typically reached by the age of five (5) years (Janssen et al., 2016). However, as articulated by Janssen et al. (2016) autistic persons may continue to struggle with recognizing facial expressions and

features and consequently having difficulty distinguishing people by gender well into adolescence and even adulthood. In addition to this, non-autistic children and adolescents may more easily develop critical thinking skills and therefore become more flexible in their perceptions of stereotypical gender ideas as they age (van der Miesen et al., 2018). However, autistic tendencies of rigid thinking and difficulty accepting change may make this more challenging for trans autistic youth and may contribute to increased occurrences of gender dysphoria (van der Miesen et al., 2018). Given that many autistic people also have associated communication challenges (van der Miesen et al., 2018) it is therefore unsurprising that many trans autistic youth find it challenging to articulate their thoughts regarding their own gender identity and may also have rigid thoughts and perceptions about gender related ideologies.

Strang et al.'s (2018) study highlights the challenges some trans autistic youth experience with regards to advocating for their gender related needs, "I guess I'm not good at explaining it [gender] much to people and when people ask questions I'm often overwhelmed by the questions" (Strang et al., 2018, p. 4051) Other perspectives showed that gender non-conformity also impacts thinking about gender and affirmation processes as stated by a surveyed individual, "I grew up in this manner of wearing these clothes and this haircut. This is what I'm comfortable with so I'm not going to change when I affirm gender" (Strang et al., 2018, p. 4051).

Several of the reviewed articles suggested that communication difficulties, can impede an individual's ability to advocate for themselves (Corbett et al., 2023; Jacobs et al., 2014; Russell et al., 2021). Protective factors such as families, friends, and supportive school environments can allow people to be more comfortable in affirming their gender, which in turn lessens their psychological distress and improves overall mental wellbeing (Greenspan et al., 2023). However, individuals may also benefit from targeted therapy around communication needs which may involve rehearsing conversations and using scripts to ensure their voice is heard (Strang et al., 2022).

Due in part to communication difficulties, the rate of internalizing behaviors is higher amongst trans autistic adolescents (Hilton et al., 2022). As internalized behaviors such as anxiety and depression are already elevated in autistic individuals and are also elevated in conjunction with gender dysphoria, trans autistic adolescents are of increased vulnerability to mental health challenges (Hilton et al., 2022). It is therefore imperative that mental health needs are regularly screened and supported as appropriate. Adolescents who were aware of their communication and thinking difficulties were hopeful that gender affirming medical avenues would assist, such as engaging in hormone therapy, “He had the hope that his communication problems would alleviate by taking estrogens” (de Vries et al., 2010). As a general trend when gender affirmation was a positive and supported experience, internalizing symptoms lessened and overall mental health improved (Jacobs et al., 2014). This demonstrates the importance of clinicians and schools working together with families to ensure that gender affirmation of the young person is supported. Some youth may require some executive functioning support to assist with complex thought management when affirming gender as many young persons may struggle with visualization, planning, and organizing their thoughts and ideas.

### **Executive functioning support**

Executive functioning describes the ability to plan, and problem solve and draws on a range of cognitive functions including attention, cognitive flexibility, and memory. It has been widely documented in research as a challenge for autistic people (e.g. Duncan et al., 2023). Two papers explored the topic of executive functioning support (Strang, Anthony, et al., 2023; Strang et al., 2022). This review further supports the emerging link between decreased levels of executive functioning in autistic people and gender dysphoria/gender diversity. More specifically, this neurocognitive characteristic likely impacts upon the pursuit of gender diversity-related needs and contributes negatively to overall mental health and wellbeing of trans autistic youth (Strang

et al., 2022). It is likely that a person’s gender-related goals are further impeded by difficulties with conceptualizing and initiating tasks and discussions if they have executive functioning difficulties. In some cases, gender affirmation processes may not commence or be effectively followed through if a person’s executive functioning is not assisted in the conceptualization and planning stage (Strang et al., 2022). Strang, Anthony, et al. (2023) have highlighted that people with reduced executive functioning may find it particularly challenging to understand and organize clinical information and would benefit from support in this area. Supports such as providing social scripts for working with staff and clinicians may allow persons the opportunity to rehearse ahead of appointments, thus reducing their cognitive load of social interactions during actual appointments (Strang, Anthony, et al., 2023). Executive functioning could also be supported by having consistent routines, reminders, and specific organizational supports. This could draw on using visual planning tools and structured step by-step explanations for complex procedures including how to navigate gender affirming care (Strang et al., 2022). Given the often stressful nature of navigating gender affirming interventions, it is also probable that family-based executive functioning supports may assist in decreasing the cognitive load of both persons and their main support people—their families. Consistent supports to target areas such as coordinating medical care and appointments, navigating gender diversity within family, extended family, and friendship groups, and having pre-organised support targeted at individual gender minority stressors, may assist in overall wellbeing (Strang et al., 2022). Additionally, schools can also provide executive functioning support that will assist with overall wellbeing.

### **School support**

School support was explored by four papers (Greenspan et al., 2023; Kahraman et al., 2021; Strang et al., 2018; 2022). As school is challenging and a source of distress for many trans autistic youth, anti-bullying policies must be clearly documented and enforced, and students

supported to affirm their gender. If this occurs, school support can be a powerful protective factor (Greenspan et al., 2023; Kahraman et al., 2021; Strang et al., 2018). However, this positive experience is in the minority (Strang et al., 2022).

Schools and the social interactions contained within require high levels of executive and cognitive functioning and the management of many different sensory inputs. This places trans autistic youth at a greatly increased risk of mental health challenges with some studies suggesting nearly half of their participants had clinically significant levels of depression and over one-third experienced suicidal ideation (Greenspan et al., 2023). Bullying, the perceived thought of bullying, and intrinsic feelings of feeling 'different' were shown to cause great psychological distress for many individuals (Greenspan et al., 2023). Schools can support their students wishing to affirm gender with considered structural supports including giving access to affirming bathroom facilities, sporting teams, physical education programs, and uniform policies (Greenspan et al., 2023). School policies and programs can assist individuals in developing positive and appropriate skills, which are essential in advocating needs and improving overall health and wellbeing.

### **Socialization**

The connection with others is a core support for individuals and socialization was a topic examined by eight papers (Cooper, Mandy, et al., 2023; Janssen et al., 2016; Kahraman et al., 2021; Kuvalanka et al., 2018; Lehmann et al., 2020; Mahfouda et al., 2019; Russell et al., 2021; Shumer et al., 2016). Many studies highlighted that autistic individuals have challenges with communication and cognitive flexibility, which contributed to difficulties in understanding social situations and conventions (Mahfouda et al., 2019). A small-scale study by Kahraman et al. (2021) suggested that between 45% and 68% of surveyed trans autistic youth felt that they had such difficulty with relating to their peers that it was causing them mental distress. Studies such as that by Kahraman et al. (2021) have recognized the challenges that social awareness presents for trans autistic youth and have further suggested that this presents challenges for clinicians seeking to

make a diagnosis of gender dysphoria. It is especially challenging if the compromised social skills affect executive functioning, which in turn contributes to obsessional thinking and interests (Kahraman et al., 2021). Studies suggest that it is possible that rigid thinking and strong interests may potentially result in misdiagnosis of autism if a gender diverse child or adolescent has a focussed interest on gender issues (Kahraman et al., 2021; Shumer et al., 2016). Conversely, other studies viewed that decreased understanding of social situations may in actuality contribute to increased rates of autism diagnosis in youth with gender diversities, as individuals may demonstrate 'social defiance' and care less about social and societal pressures and stigmas than their peers (Cooper, Mandy, et al., 2023; Shumer et al., 2016).

Many autistic individuals find it challenging to relate to other people so the creation of social groups with shared autistic and trans experiences may provide support and a sense of community connectedness (Kuvalanka et al., 2018). Family members may also be supported by social groups which may contribute positively toward improved wellbeing (Kuvalanka et al., 2018).

Parallel to this, several studies suggest that given the clear overrepresentation of autism in trans persons, it should be standard practice for all gender clinicians to screen for autistic traits in all youth who are seeking gender affirmation services, including gender affirming medical care (Lehmann et al., 2020; Russell et al., 2021). They surmise that as autistic traits often require substantial supports, if autism is identified by gender clinicians early in the process, more wholistic treatments, including gender affirming medical care/interventions, will benefit the person and provide an overall improvement to mental health and wellbeing (Cooper, Mandy, et al., 2023). It is therefore imperative for all gender clinicians to be upskilled, become familiar with, and maintain awareness of current research of autistic traits when working with trans autistic youth (Janssen et al., 2016).

### **Discussion**

This SLR aimed to synthesize information about recommended supports for school-aged trans

autistic children and youth to optimize their health and wellbeing. Findings from the current review add to the emerging body of literature through identifying positive support and intervention strategies for trans autistic youth. It specifically posed the question: *What is known about the supports required by trans autistic school-aged youth to improve their mental health, wellbeing, and quality of life?*

In response to the research question, findings suggest that targeted intervention is required to support the neurodivergent needs of autistic people, gender affirming practices, including gender-affirming medical care, associated with gender dysphoria, and mental health factors such as anxiety, depression, and suicidal ideation (Mahfouda et al., 2019; Strang, Anthony, et al., 2023).

The 20 studies reviewed have suggested that although correlations between autism and gender dysphoria are increasingly well documented, many gender clinicians feel that they require upskilling to understand and support autistic tendencies more appropriately. The opposite also appears to be true where clinicians primarily working with autistic children and youth would benefit from upskilling in gender related studies (Cooper, Mandy, et al., 2023). Implications for clinicians also reflected training needs in successfully adapting practices, including clinical environments, to positively support sensory considerations for trans autistic young people (Cooper, Butler, et al., 2023; Janssen et al., 2016; Mahfouda et al., 2019). Similarly, considering the overrepresentation of autism in trans persons, gender affirming care clinicians should consider it becoming a standard practise to screen for autistic traits in all children and youth who are seeking gender affirming services and (medical) care (Lehmann et al., 2020; Russell et al., 2021). Clinicians may also need to revise their typical engagement practices with trans autistic clients to allow for more time to develop rapport and establishment of routines with structured sessions comprising clear objectives and expectations that can be tracked and followed (Cooper, Butler, et al., 2023; Zupanič et al., 2021), including using visual planning tools and structured step-by-step explanations for complex procedures such as

gender affirming (medical) care (Strang et al., 2022). Flexibility in session times and lengths are also key to facilitate shorter sessions, with more frequency allowing for information to be effectively processed and experienced as less overwhelming for the young person (Cooper, Butler, et al., 2023).

As this SLR is focussed on children and youth up to 18 years of age, participants are of school age. This means that the participants in this review spend a large portion of their time in a school environment and their experiences within a school setting, both positive and negative, can greatly impact their health and wellbeing. As such it is imperative that clinicians and schools work together with the young person and their families to ensure that the young person's gender affirmation process is supported (Greenspan et al., 2023). Trans autistic youth are already a vulnerable minority and are therefore more susceptible to mental health challenges than their cisgender and non-autistic peers. When school remains a source of distress and anxiety, self-harm and suicide also become a more inherent risk (Bartholomaeus & Riggs, 2017a, 2017b; Hill et al., 2021; Lyttle & Sprott, 2020). According to Hill et al. (2021), 55.3% of neurodiverse and sexually and/or gender diverse adolescent participants in their study felt unsafe or uncomfortable at school in the past year, and as a flow on effect many stated they had missed school due to these feelings (Hill et al., 2021). The participants revealed that much of their distress was due to being unsupported to affirm their gender and being subjected to verbal harassment and in some cases physical abuse (Hill et al., 2021). The report also showed that harassment, and perceptions of potential harassment continued to follow many adolescent participants into adulthood (Hill et al., 2021) and therefore continued to psychologically affect their quality of life. It is therefore imperative that schools work toward supportive policies and procedures that may instill inclusive and affirming thoughts and practices in young people (Bartholomaeus & Riggs, 2017a, 2017b; Hill et al., 2021) and consequently have long term positive influences on trans autistic communities post-school years (Greenspan et al., 2023; Kahraman et al., 2021; Strang et al., 2018).

## Limitations

This review excluded articles that were not published in English. It is possible therefore that relevant key findings were missed if studies were published in a language other than English. Grey literature was not used and included in this review, meaning that potentially relevant nonacademic sources may have been omitted. This is also an emerging area of research with more than half of the selected studies were published in the last three years, indicating that more research needs to be focused in this area. Consequently, this was a relatively small sample size for a literature review, having only 20 articles used for synthesis purposes and thematic analysis. Furthermore, many of the studies reviewed had elements of bias as participants were predominantly of White backgrounds. Future studies should be inclusive of a broader range of intersectional backgrounds and minority groups.

## Conclusions

This review has highlighted the importance of further research into what supports are required to ensure positive long-term health and wellbeing for school-aged trans autistic children and youth. This SLR has synthesized current recommendations of support for school-aged trans autistic children and youth, but we acknowledge that there is a larger body of work that exists which is relevant to trans autistic adults. As an emerging area of research, future studies should include larger sample sizes and more longitudinal studies to track the life journeys of trans autistic individuals. Future studies should also include child and adolescent populations to ensure that individuals are unpacking their gender identity and being supported to advocate for their needs from early on in their gender affirmation journeys. Lastly, as trans autistic adults statistically have the highest levels of mental health difficulties, even higher than those seen in autistic cisgender or trans adult populations (Corbett et al., 2023), the needs of trans autistic youth must be supported in younger years to ensure that these individuals have supports for future positive health and wellbeing, and an overall good quality of life.

## Note

1. This six-phased guide of thematic analysis consists of (1) familiarizing your-self with your data; (2) generating initial codes; (3) generating (initial) themes; (4) reviewing themes; (5) defining and naming themes; and (6) producing the report (Braun & Clarke 2019, 593).

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