Macalester College DigitalCommons@Macalester College

Psychology Honors Projects

Psychology Department

Spring 5-1-2024

Perspectives on Neurodiversity-Affirming Education for Autistic Children

El Alcalá Macalester College, elpalcala@gmail.com

Follow this and additional works at: https://digitalcommons.macalester.edu/psychology_honors

Part of the Disability and Equity in Education Commons, and the Psychology Commons

Recommended Citation

Alcalá, El, "Perspectives on Neurodiversity-Affirming Education for Autistic Children" (2024). *Psychology Honors Projects*. 55. https://digitalcommons.macalester.edu/psychology_honors/55

This Honors Project is brought to you for free and open access by the Psychology Department at DigitalCommons@Macalester College. It has been accepted for inclusion in Psychology Honors Projects by an authorized administrator of DigitalCommons@Macalester College. For more information, please contact scholarpub@macalester.edu.

Perspectives on Neurodiversity-Affirming Education for Autistic Children

El Alcalá

Department of Psychology, Macalester College

Author Note

This is an honors project composed of two chapters. Chapter 1 was completed during the Fall 2023 semester, and Chapter 2 during Spring 2024. While the chapters are related in subject matter and approach, each represents a distinct period of research, thinking, and writing. My understanding of the issues addressed in this project evolved throughout my work, which is reflected in the text.

Abstract

Rates of autism diagnosis have increased dramatically in recent decades, along with efforts to include disabled students in general education classes. However, there are significant barriers to full educational inclusion for autistic children with all levels of support needs. In Chapter 1 of this project, I review literature on common barriers to educational inclusion for autistic students as well as the strengths and shortcomings of school-based service delivery models frequently provided in an effort to mitigate these barriers. I then propose an innovative, neurodiversity-affirming model of service delivery for autistic elementary school students in general education classrooms. In Chapter 2, I examine the particular educational challenges faced by autistic students with high support needs, who are more likely to be placed in separate special education classrooms. I explore the question of educational placements for these students, with special attention paid to the role of parents as decision-makers, and argue that parents' ideological conceptions of autism are a key factor in their decision-making.

Keywords: Autism Spectrum Disorder, inclusive education, service delivery, elementary school, neurodiversity, high support needs, educational placement, special education

Positionality Statement

This honors project examines the educational experiences of autistic elementary school students. I, the author, am an autistic person with low support needs. I also have developmental coordination disorder, another disability referenced in Chapter 1 of this project. I identify strongly as a member of the disabled community and use identity-first language to describe myself, which has impacted my choice of language for this project. I was not diagnosed with autism until the age of 17, which impacted my ability to receive the appropriate early intervention services that I detail in Chapter 1. As a result, my experience of school was very negative, which has impacted my desire to do research that may help to improve school experiences for autistic children. Additionally, the neurodiversity paradigm, which I use throughout this project as a lens through which to evaluate service delivery models and educational placements, has been instrumental to my understanding of my own identity and my conceptualization of autism as both a disability and a natural neurological variation. My understanding of autism in the elementary school setting has also been informed by my work as a classroom assistant in a second grade general education classroom, which took place concurrently with working on this project. In this role, I have worked extensively with an autistic student and observed the provision of his school-based therapeutic services. While both my job experience and my being autistic has undoubtedly introduced bias into the research and writing of this project, I also believe that my intimate personal knowledge of this topic has deepened my exploration and allowed for understandings that a non-autistic researcher may not have been able to achieve.

Chapter 1

P4C4A: An Innovative Neurodiversity-Affirming Service Delivery Model for Autistic Elementary School Students

Autism spectrum disorder (ASD), hereafter referred to interchangeably with "autism", is a lifelong neurodevelopmental disorder characterized by differences¹ in social communication and interaction and restrictive or repetitive patterns of behavior (APA, 2022). Autism prevalence rates have increased over the past several decades. This increase in children identified with autism has coincided with an increasing push in many countries to include disabled children², including autistic children, in general education classrooms (Anaby et al., 2019). Additionally, as a result of the work of autistic self-advocates, discourse on autism has begun to shift from a view of autism as pathological to a view of autism as one of many neurotypes that comes with its own strengths and challenges (Singer, 2017). This idea of "neurodiversity" has begun to influence research and practice related to autistic people, with a greater emphasis being placed on personal agency and quality-of-life as opposed to attempting to "cure" autism or make it undetectable (Cherewick & Matergia, 2023; Dawson et al., 2022). This chapter will examine how a neurodiversity-affirming approach to organizing and delivering therapeutic services in schools can increase school inclusion for autistic elementary school students in general education classrooms. I will begin with a brief overview of ASD and the neurodiversity paradigm, before examining common barriers to full inclusion for autistic elementary school students. I will then discuss frequently used approaches to school-based service delivery for disabled students and their advantages and disadvantages when it comes to serving autistic students. Finally, I will describe an innovative model of service delivery, Partnering for Change (Missiuna et al., 2012),

¹ While the DSM-5-TR (APA, 2022) refers to such differences as "deficits", I reject this language, as do many other autistic people (Kenny, 2016). The neurodiversity paradigm encourages conceptualization of autistic traits as differences from the norm rather than deficits to be remedied.

² While acknowledging that each member of the disability community has their own preferences in regards to language, I use identity-first language throughout this project to refer to autistic people, as it is the preference of most members of that community (Kenny et al., 2016) and to disabled people more broadly, as the use of person-first language has been linked to continued stigma, especially for disabled children (Gernsbacher, 2017).

and how it could be adapted to meet the specific needs of autistic elementary school students within a neurodiversity-affirming framework.

In addition to difficulties with social communication and repetitive or restrictive behaviors, many autistic people struggle with executive function, motor skills, sensory hyper- and hypo-sensitivities, and co-occurring medical and mental health conditions (CDC, 2022). About one-third of children identified with autism also have an intellectual disability (Autism and Developmental Disabilities Monitoring Network, 2023), and approximately a quarter are minimally speaking, meaning that they have limited spoken language capabilities (Rose et al., 2016). Prevalence rates for ASD have risen in recent years, with 1 in 36 U.S. 8-year-olds being identified as having the disorder (Autism and Developmental Disabilities Monitoring Network, 2023), up from 1 in 59 in 2014 and 1 in 88 in 2008 (Baio et al., 2018). Additionally, early identification efforts have succeeded, with children born in 2016 being 1.6 times more likely to have been diagnosed by 4 years of age than children born in 2012 (Autism and Developmental Disabilities Monitoring Network, 2023).

This increase in diagnosis has coincided with a broad cultural shift led by autistic self-advocates, termed the "neurodiversity movement". This movement aims to shift society's understanding of autism as pathological and something to be eliminated or cured, towards the idea of neurodiversity (Singer, 2017). The neurodiversity perspective posits that autism is one of many natural variations in brain structure and function ("neurotypes"), and that the disabling effects of autism are due at least in part to living in a world constructed by and for people with the dominant neurotype ("neurotypicals") (Singer, 2017). The neurodiversity movement critiques many of the goals of autism early intervention programs, as well as applied behavior analysis (ABA), long considered to be the gold standard of autism treatment, for attempting to train autistic people to act like neurotypicals instead of prioritizing their authentic well-being (Dawson et al., 2022). As a result of this criticism, autism research and practice has begun to shift away from the goal of making autistic people seem as neurotypical as possible, towards a goal of

5

Perspectives on Neurodiversity-Affirming Education

supporting higher quality-of-life as defined by the individual. For example, instead of attempting to force an autistic person who struggles with spoken language to communicate verbally, a neurodiversity-affirming practitioner might provide the person with an augmentative and alternative communication device, allowing them to express themself more freely and have more agency (Dawson et al., 2022). Additionally, this perspective encourages the recognition of autistic strengths. While noting that every autistic person is different, certain strengths have been noted as common among autistic people, including a strong regard for fairness and justice and the ability to focus intently on a topic of interest. Researchers and practitioners have begun to leverage these strengths when designing and implementing new interventions for autism (Cherewick & Matergia, 2023). Finally, the neurodiversity framework recognizes that the onus is usually placed on autistic people to change their behavior or to camouflage their autism in order to fit in with neurotypical society, and that a paradigm shift is necessary to move this burden so that it is equally placed on society to understand and accommodate autistic people (Dawson et al, 2022).

Regardless of philosophical approach, early intervention is broadly recognized as critical for promoting skill development in autistic children, though neurodiversity-affirming early intervention may look different than traditional early intervention programs (for example, promoting the use of sensory tools instead of attempting to eliminate self-stimulatory behaviors) (Dawson et al., 2022). Because children are not always identified with autism before starting school, and because schools often provide easier access to service professionals like behavior and occupational therapists than many families have in the community, elementary schools are critical spaces for providing early identification and support for autistic children. Additionally, rates of school-refusal behaviors are higher for autistic students of all ages than for their typically developing (TD) peers, likely due to the unique stress of the academic, social and sensory aspects of schooling for autistic students (Cunningham, 2022; Munkhaugen et al., 2017). Therefore, it is crucial that autistic students have positive early school experiences which

create a foundation for later success. For these reasons, this chapter will focus on autistic students in elementary school (kindergarten through 5th grade in the United States, or roughly ages 5-12).

Autism Spectrum Disorder in Elementary Schools

The steady rise in rates of autism diagnosis has also paralleled a shift in the approach to disabled students in U.S. public schools. As a result of the 1975 Individuals with Disabilities Education Act (IDEA) and its mandate of the "least restrictive environment", disabled students, including autistic students, have been increasingly educated in general education classrooms for at least part of the school day (U.S. Department of Education, n.d.). During the 2018-2019 school year, 40 percent of autistic students who qualified for special education services under IDEA spent 80 percent or more of their school day in a regular classroom, and another 18 percent spent between 40 and 79 percent of their school day in a regular classroom (U.S. Department of Education, such as the United Kingdom, Canada, and Australia. Inclusive schooling (sometimes referred to as "mainstreaming"), in which disabled children spend as much time as possible in a general education classroom, participating in the same activities as their non-disabled peers, has been linked to better physical, social, and emotional outcomes among disabled children (Timmons & Wagner, 2009).

However, in proposing a theoretical model of school participation and autism, Hodges et al. (2022) note the important difference between *attendance* and *involvement*. An autistic child's presence in a general education classroom does not indicate participation in activities or that the child experiences a feeling of school connectedness, defined by Hodges and colleagues as "the extent to which students feel valued and cared for in their school community," (p. 3234) which is both a predictor and outcome of school participation. In this chapter, "inclusive education" and "inclusion" are used to refer to a situation in which a disabled student is not simply present in a

general education classroom, but who is enabled through accommodation and support to participate in activities to the same extent as their non-disabled peers.

There are significant barriers to achieving true inclusive education for autistic children. Even those without intellectual disabilities may have learning disabilities and motor challenges that make keeping up with TD peers difficult. Additionally, many autistic students find the social and sensory aspects of school confusing, overwhelming, or anxiety-inducing (Cunningham, 2022; Hodges et al., 2022). Autistic students who are aware of their differences may try to "mask" or hide their autistic traits, an activity that has been associated with poor mental health outcomes (Cunningham, 2022; Cook et al., 2021). School refusal is just one such manifestation of these challenges. The literature on inclusion of autistic students in general education classrooms is rife with examples of challenges experienced both by teachers and students themselves, which can be broken down into several broad categories. The majority of this literature is in the form of gualitative studies of experiences of general education teachers (and sometimes other school staff) or of students themselves, usually consisting of a questionnaire and interview with open-ended questions, followed by a thematic analysis of responses (Anaby et al., 2020; Anglim et al., 2018; Cunningham, 2022; Grandisson et al., 2019; Lindsay et al., 2013; Yi & Siu, 2021). Due to differences in educational systems and environments and the studies' generally small sample size (between six and 95 participants, with most having fewer than 20), their findings may not be generalizable to all contexts. However, as similar themes emerged across studies, they do offer a useful idea of what barriers to full inclusion of autistic students may be most important to address.

Behavior

Difficult-to-manage behaviors were cited by general education classroom teachers in multiple qualitative, interview-based studies as the primary challenge in having an autistic student in their classroom. Autistic children may experience meltdowns during which they may be unable to access their normal range of skills, and many also struggle with emotion identification and regulation more than TD peers (CDC, 2022). The school environment, with its many expectations and sensory triggers, may be especially likely to provoke such responses. One Irish primary school teacher summarized her experience with an autistic student as follows: "if I don't help him, there will be all out war...he will be throwing things and screaming and shouting, and nobody can work at all then" (Anglim et al., 2018, p. 82). Other teachers also referenced the difficulty of needing to spend valuable time assisting the autistic student with regulating emotions and behavior instead of engaging in whole-class teaching. Many teachers also expressed that they were often unsure of how best to address difficult behaviors, and had to resort to trial-and-error methods (Anglim et al., 2018; Lindsay et al., 2013). Teachers also noted particular difficulties during less structured times (e.g., breaks, recess) and during transitions between activities (Grandisson et al., 2019; Lindsay et al., 2013). Overall, teachers were sympathetic to the reasons why autistic students might engage in difficult behavior, but were often at a loss for how to handle outbursts, especially in the whole-class context.

Relationships with peers

Differences in social communication and interactions are a hallmark of ASD, so it is unsurprising that this barrier was noted across multiple studies of autistic inclusion in general education. Yi and Siu (2021) conducted a study of relationships between autistic students and their TD peers in a Hong Kong primary school using an ethnographic approach. Both groups of students were interviewed about their experiences of the social aspect of school, and the TD students were also asked to respond to a series of hypothetical vignettes about how they might interact with an autistic peer in various scenarios. Responses indicated that the autistic students were frequently confused by the unspoken rules of interaction followed by their TD peers and often preferred to play alone rather than attempt to understand them, a finding echoed by autistic children in a qualitative study conducted in the United Kingdom by Cunningham (2022). TD students were broadly sympathetic to their autistic peers, but also reported being confused and sometimes frightened by their behavior. The researchers noted that the Hong Kong teachers were hindered in their ability to directly address relationship problems and bullying by a school policy of non-disclosure of disability, an issue also noted by Canadian teachers interviewed by Lindsay and colleagues (2013): "The biggest challenge is explaining to the other children that [the student with ASD] needs more time or care" (p. 355). TD students often understand that their autistic classmate is different, but will negatively conceptualize this as being "weird" without being given other language to use (Lindsay et al., 2013; Hodges et al., 2022).

Academics

Multiple studies have also noted academic barriers to inclusion. While it is beyond the scope of this chapter to examine the complexities of the intersection of intellectual and learning disabilities and autism and their role in education, both are common co-occurrences with autism. Additionally, even absent these additional challenges, autistic students may experience academic difficulty associated with other autistic traits. For example, social communication differences may make group work difficult, and typically developing classmates may be reluctant to work with an autistic classmate (Yi and Siu, 2021). Additionally, rigidity and restricted interests may be a challenge to work with, as described by a teacher interviewed by Lindsay and colleagues (2013): "...it was a constant challenge with his behaviour and trying to include him within the lessons and the classroom because he had his mind set on working on the computer and doing his own thing versus a specific lesson. So inclusion was much more difficult" (p. 355). Executive function differences may also impede following multi-step instructions and planning independent work, which becomes an essential academic skill as children progress into the upper elementary grades, and motor skill difficulties can make handwriting and using scissors a challenge (Anglim et al., 2018; Cunningham, 2022).

Teacher Efficacy

The efficacy of general education teachers in supporting autistic students was noted as a barrier across studies. Teachers themselves, when interviewed by researchers as part of

Perspectives on Neurodiversity-Affirming Education

gualitative studies investigating perceived barriers to inclusive education, were consistently upfront about what they saw as a gap in their training and abilities. While teachers were generally accepting of having disabled students, and autistic students specifically, in their classroom and understood the importance of inclusive education, many also expressed that their teacher training had included little information on disabled students in general, and even less on autism (Anaby et al., 2020; Anglim et al., 2018; Lindsay et al., 2013). While the quantity and quality of information on autism provided during a teacher's education very likely depends on when and where they went to school, it is notable that this was mentioned in studies conducted across broad geographic areas of both Canada and Ireland, suggesting that the problem is not confined to one specific educational system or university. Additionally, many teachers indicated that this lack of guidance on how to approach teaching an autistic student led them to simply use trial-and-error methods. One Irish primary school teacher said that she "found out by chance" that "if you write down on a bit of paper 'Why are you feeling like a bad person?' he will answer you" (Anglim et al., 2018, p. 80). On one hand, as the needs of autistic students are variable and do not conform to a one-size-fits-all approach, this is a useful adaptive strategy. On the other hand, the majority of teachers interviewed found this kind of constant improvisation stressful. The findings of Anglim and colleagues (2018) also linked teachers' feelings of inefficacy surrounding supporting high-needs students with a decreased belief in the merits of inclusivity, suggesting that both self-perceived and externally measurable teacher efficacy are crucial to the success of inclusive education.

Structural barriers

Macro-level barriers to inclusion, whether at the school or governmental level, were also frequently referred to. Lack of funding, whether for educational assistants, adaptive technology, or sensory tools, was the most commonly noted, both by teachers and other school personnel (Anaby et al., 2020; Anglim et al., 2018; Lindsay et al., 2013). Additionally, smaller class sizes were noted as better facilitating inclusion for all disabled students, including autistic students (Anaby et al., 2020; Lindsay et al., 2013), presumably because the teacher is able to give more individual attention to each child, and because a classroom with fewer students may be less overstimulating for a child with sensory sensitivities. Finally, support for inclusion from the school and school district administration, both practically (e.g., allocating funding for materials needed by disabled students, offering continuing education on best practices in inclusive education) and culturally (e.g., incorporating language on inclusion in messaging to students and families) has been determined to be a necessary component of inclusive education (Haines et al., 2015).

School-based Service Delivery

In order to promote early skill development, which may reduce some of the above barriers to inclusion, many autistic children in the elementary school age group receive a wide range of therapeutic services. Services frequently provided to this population include speech, physical, and occupational therapy (OT), behavior therapy such as ABA, mental health support, and social skills instruction (Wei et al., 2014). In many parts of the United States and other industrialized nations, some or all of these services may be provided by school-based practitioners. This approach has the advantage of allowing students to receive services in the location where they spent most of their time, simplifying the process of referring students for services, and easing the burden on families to transport children to other locations for appointments (Wei et al., 2014). Additionally, many autistic students in U.S. public schools qualify for academic supports such as special education teaching or one-on-one assistance from a qualified support person during some or all class activities, adding to the number of non-teacher professionals who may be supporting autistic students in the school context (Wei et al., 2014).

Given the number of professionals who may be providing services and the complex needs of many autistic children, organizing service delivery for maximum effectiveness is key. School-based service delivery methods for disabled children have traditionally revolved around "pull-out" therapy, in which professionals remove a disabled child from the general education classroom in order to provide one-on-one or small group assessments or interventions (Anaby et al., 2019; Missiuna et al., 2012). Examples of this method of service delivery include a child being removed from class by a special education teacher for differentiated math or reading instruction, or a speech-language pathologist pulling a child out of class to deliver biweekly individualized speech therapy. While pull-out therapy has the advantage of allowing focused attention on the child receiving services, and may be essential for conducting certain assessments (Camden et al., 2021), recent literature in the field of school-based service delivery for disabled children has questioned its overall effectiveness at meeting the complex needs of disabled students in inclusive settings within the organizational constraints experienced by many schools (Anaby et al., 2020; Campbell et al., 2012; Crosland & Dunlap, 2012; Grandisson et al., 2019). The pull-out model relies on a referral system, in which teachers or parents first indicate that there is a concern. The child is then assessed by the relevant professional in order to determine whether they qualify for services. In many education systems, waitlists may result in a delay of weeks to months before a child can actually begin receiving services (Anaby et al., 2020; Missiuna et al., 2012; Grandisson et al., 2019). For children already struggling, the situation may have become a crisis by the time service delivery begins. Additionally, teachers, knowing that the system is overburdened, may be hesitant to refer students whose challenges are less debilitating, but who would still benefit from support (Missiuna et al., 2017). Finally, utilizing the pull-out model alone does not meet the criteria of inclusive education or of being neurodiversity-affirming, as disabled students are removed from the inclusive setting and the burden is put on them to develop skills to function as expected in the classroom without changing the environment to better suit their needs.

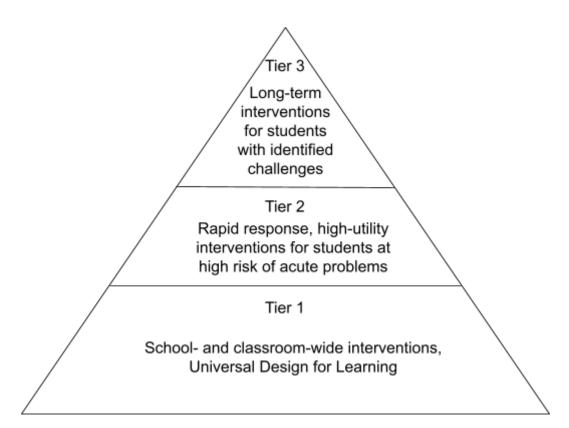
In recognizing the deficits of the pull-out model, researchers and practitioners in the field of inclusive education have begun to consider alternative approaches. Many of these, including Response to Intervention (RtI) and School-Wide Positive Behavior Supports and Interventions (SW-PBIS) fall under the broad umbrella of multi-tiered systems of support (MTSS) (Crosland & Dunlap, 2012). I will provide a more detailed description of Rtl later in this chapter. In the MTSS model, which has been implemented for students in inclusive settings with a wide range of challenges, interventions are divided into three tiers (see Figure 1). The first tier includes interventions targeted to all students in the school or classroom, with and without diagnosed disabilities (Crosland and Dunlap, 2012). Many of these Tier 1 interventions fall into the category of Universal Design for Learning (UDL), a framework which aims to support educators in creating inclusive learning environments for students with diverse needs. Based on the principles of universal design in architecture, UDL encourages modification of the learning environment in a way that eliminates barriers for disabled students but also benefits other students (Kennedy, 2018). For example, instead of giving only verbal instructions, a teacher may present information both orally and with pictures, improving all students' comprehension. When implemented consistently and with fidelity, UDL is neurodiversity-affirming, as it acknowledges that each student has different needs and aims to create an environment that meets as many of these needs as possible, rather than asking students themselves to change. Moreover, UDL may facilitate improved peer relationships across disability status. Since all children benefit from increased accessibility, disabled children are less likely to be seen as different for receiving accommodations or differentiated instruction. Because Tier 1 interventions address the entire population of students, MTSS are sometimes referred to as population-level approaches. Tier 2 of the MTSS model includes interventions targeting a much smaller number of students, usually those identified as struggling and at high risk for acute problems, though not necessarily diagnosed with any disability. For example, for a student displaying problematic behaviors, school staff may institute lower-intensity behavior modification protocols (Crosland & Dunlap, 2012), and students who test below grade level in reading or math may receive small-group remedial lessons. Finally, Tier 3 includes interventions targeting students needing the most support, often those with diagnosed disabilities and Individualized Education Plans

(IEPs). Tier 3 frequently consists of therapeutic services delivered via pull-out, such as speech

and occupational therapy or differentiated instruction from a special education teacher.

Figure 1

Multi-tiered Systems of Support Model



While tiered approaches such as Rtl and SW-PBIS have been successful for students with a wide range of disabilities, there is no data that specifically assesses their effectiveness for autistic students (Crosland and Dunlap, 2012). Additionally, both Rtl and SW-PBIS address only one barrier to inclusion: academics and behavior, respectively. Autistic students require a service-delivery model that includes the neurodiversity-affirming components of MTSS such as Universal Design for Learning while addressing the multiple, sometimes interacting barriers that can prevent them from thriving in a general education classroom. Additionally, this model must be flexible enough to address the extremely varied needs and abilities of autistic children as well

as functional within organizational constraints common to many schools, such as limited funding and limited time on the part of teachers and service providers.

Anaby and colleagues (2019) provide a useful summary of the state of school-based service delivery more broadly. They conducted an extensive review and thematic analysis of both scholarly and gray literature on the subject of school-based service delivery and found 10 common principles of school-based service delivery to guide practitioners. The themes were divided into macro-level (school and classroom-wide) and micro-level (individuals). Macro-level themes identified were multilevel services (such as MTSS), universal design, collaborative intervention, and coordination of services. Micro-level themes identified were support for staff, group and individual-based interventions, limited pull-out therapy to address specific concerns, ecological interventions (meaning that students remain in their natural environment such as the classroom or playground), and family involvement. As such, any new service delivery model for autistic students should include as many of these components as possible.

Partnering for Change

In recognizing the deficits of the pull-out model and even MTSS as traditionally implemented, and in response to long wait times for occupational therapy services in Ontario public primary schools, Missiuna and colleagues (2012) created Partnering for Change (P4C), an innovative school-based service delivery model specifically focused on improving outcomes for students with developmental coordination disorder (DCD), also known as dyspraxia. DCD is a lifelong neuro-developmental disability that specifically impacts motor coordination (Missiuna et al., 2012). Children with DCD may struggle with tasks such as holding a pencil, using scissors, and catching a ball, which can make it difficult for them to meet the academic demands of elementary school. Missiuna and colleagues found that the majority of referrals to school-based OT services were for children presenting with challenges consistent with DCD, but that children were often waiting months to be evaluated for pull-out services provided by the school-based occupational therapist. Additionally, evidence indicates that, much like autism,

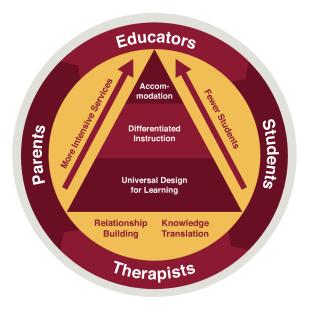
16

DCD does not "go away" or improve over time, though people with DCD may learn new skills and adaptive strategies. Therefore, pull-out occupational therapy that aims to improve motor skills through repetition is likely a waste of time for both students and therapists (Missiuna et al., 2012). P4C also addresses the commonly cited barrier of teacher efficacy in working with disabled students. The model aims to improve outcomes for students with DCD through "Capacity building through Collaboration and Coaching in Context" (the 4 Cs) (Missiuna et al., 2012). As such, in P4C, general classroom teachers are considered to be integral team members rather than on the periphery of the provider-child relationship as is often the case in traditional pull-out therapy.

Partnering for Change is a multi-tiered model (see Figure 2) and takes inspiration from Response to Intervention in that it aims to empower teachers to implement evidence-based problem-solving methods in their classrooms, without waiting for formal assessments (Missiuna et al., 2012). In both Rtl and P4C, teachers are trained to use dynamic performance analysis (DPA), a procedure for identifying and immediately acting to solve problems that are impeding a student's full participation in school activities (Wilson & Harris, 2017). In DPA, a teacher or professional observes a child as they go about their daily routine. When the child encounters a barrier or has difficulty completing an activity, the adult makes a conjecture about what may be contributing to the issue and chooses a potential solution to implement. How the child responds to this solution and whether it resolves the problem determine the next steps in the process, and whether the child should receive more intensive services (perhaps moving from Tier 2 to Tier 3 on the MTSS model). This process is repeated as many times as necessary to address the barriers that the child is experiencing (Wilson & Harris, 2017). In addition to being less resource-intensive, the advantages to DPA are that it occurs in-context, reducing the need for pull-out and making the interventions more applicable to the actual situations the child is encountering, and it is more flexible, as it allows providers to quickly pivot to a different approach if the first one is not successful.

Figure 2

The Partnering for Change Model



Note. From "Description of The Partnering for Change Model," by C. Missiuna, N. Pollock, W. Campbell, D. Levac, and S. Whalen, 2011,

(<u>https://www.partneringforchange.ca/what-is-p4c/description/</u>). Copyright 2011 by Missiuna, Pollock, Campbell, Levac, Whalen, CanChild, and McMaster University.

P4C builds on the strengths of Response to Intervention by specifically emphasizing the relationship between the teacher and occupational therapist (Missiuna et al., 2012). In the P4C model, occupational therapists act as both a collaborator and coach to the general classroom teacher. They visit the classroom during regular class activities as well as meet with the teacher during the teacher's planning period or lunchtime. The activities of the occupational therapist during these visits and meetings vary, as the goal is to respond to the needs and preferences of the teacher. For example, they may observe the whole class during a lesson and offer suggestions to the teacher about how to implement UDL both during class activities (such as by using stickers instead of having students cut and paste paper) and in the classroom (such as by

redesigning the layout of desks to facilitate easier access to chairs and needed materials). The occupational therapist may also assist the teacher in implementing Rtl with specific students and might suggest new interventions for the teacher to try before the next occupational therapy visit (Missiuna et al., 2012). P4C also broadens the scope of possible interventions. While Rtl is typically used only to problem-solve academic concerns (Crosland & Dunlap, 2012), P4C therapists assist with addressing barriers affecting any aspect of a child's school participation. For example, if motor problems are preventing a child from joining their peers in games on the playground or navigating a crowded lunchroom, a P4C occupational therapist can use DPA to intervene. The occupational therapist may also provide education about DCD and strategies to troubleshoot common problems, either during one-on-one meetings with teachers or during occasional "lunch and learn" sessions for all teachers in the school (Campbell et al., 2012). In this model, the occupational therapist provides expertise about DCD and offers strategies for teachers to use, and the teacher provides extensive knowledge of the student, as the student spends most of their time in the teacher's classroom. Therefore, this partnership leverages collaboration between teachers and therapists for the benefit of students with DCD.

Missiuna and colleagues (2017) conducted a comprehensive 2-year evaluative study of Partnering for Change across 40 primary schools in Ontario. Occupational therapists trained in implementing P4C delivered services 1 day per week in each school. At the beginning of the study, students who were already on the waitlist to receive traditional pull-out occupational therapy services were transferred to receiving care from the P4C therapist. These children are referred to as "waitlist" children. After beginning their work in the school, occupational therapists then worked collaboratively with teachers to identify other students who would benefit from OT services but who were not on the original waitlist. These children are referred to as "OT-identified". Between the two groups, more than 592 children across the 40 schools were receiving Tier 2 and 3 P4C services by the end of the first year of the study. Because of the population-level approach of P4C, all students in these schools received Tier 1 services. Of the

students receiving Tier 2 and 3 services, 246 families gave consent for their children to participate in the study. The 246 study participants were on average slightly older than all of those receiving services, otherwise, the two did not differ demographically (such as in gender or family characteristics). A primary caregiver for each child completed demographic surveys as well as questionnaires assessing DCD symptoms visible at home and overall strengths and difficulties. Each child's classroom teacher also completed a questionnaire assessment of school functioning. Additionally, the occupational therapist administered a standardized assessment of motor functioning to each child enrolled in the study.

The results of this study suggest that Partnering for Change is more effective than traditional referral-based, pull-out service delivery models in identifying struggling students with a wide range of challenges and providing intervention in a timely manner. Although P4C was originally designed to address motor challenges in students with probable DCD, the population-level approach and the lack of emphasis on formal assessments and diagnoses meant that occupational therapists participating in this study were able to address additional challenges creating barriers to full school participation, such as learning disabilities, executive functioning, sensory differences, emotional regulation, and social interaction. Nonetheless, 70% percent of the students who received differentiated instruction or accommodation through P4C were identified through the assessment of motor functioning as having probable DCD. Additionally, 56% of students receiving these Tier 2 and 3 services had already received another diagnosis, usually a learning disability, a speech or language problem, or attention-deficit/hyperactivity disorder. Seven out of the 246 research participants had been identified with autism. Students in the OT-identified group were on average one year younger than their peers in the waitlist group, suggesting that P4C is more effective than referral-based occupational therapy at early identification. At the outset of the study, the researchers hypothesized that OT-identified students would have less severe challenges and fewer

co-occuring conditions. This was not the case, suggesting that students with extreme need are still going unidentified in traditional service-delivery systems.

A randomized controlled trial evaluating Partnering for Change has not yet been conducted, and thus it is impossible to draw definitive conclusions about student improvements when receiving services through Partnering for Change versus traditional service-delivery models. However, teachers in schools where P4C has been implemented report a high level of satisfaction with the program across multiple studies. As part of their comprehensive, evaluative study, Missiuna and colleagues (2017) asked all educators working in the 40 participating schools to complete an Educator Skills, Knowledge, and Beliefs Questionnaire at four points in time (at the start and end of each school year included in the study). Seven hundred and seventy-three educators completed the questionnaire, though each one did not necessarily complete it all four times. Whether or not they had had a student receiving Tier 2 or 3 P4C services in their classroom, educators' self-reported competency and capacity increased significantly at each point in time, except for at the start of the second school year, when educators had not been at school over the summer.

Wilson and Harris (2017) conducted a qualitative study of eleven general education classroom teachers at a British Columbia elementary school where P4C was being newly implemented. Teachers were invited to participate in focus groups and one-on-one interviews in order to share their impressions of the P4C program. Teachers overwhelmingly felt that P4C helped mitigate some of the structural barriers that they had previously faced. One teacher stated that "[with P4C], you don't have to wait for the child to fail. You don't have to wait to do all those other processes before. We know what they need. Or, I need you to help me know what they need and let's do it! Rather than that process that bogged everything down, right?" (Wilson & Harris, 2017, p. 136). Teachers also broadly agreed that having the occupational therapist provide "in-the-moment" support and modeling helped them to implement strategies that they otherwise would not have, even if they were previously aware that the strategy existed. Another

21

advantage mentioned by teachers included that the OT was able to see more students, as they needed to spend less time on assessments and write-ups than in a traditional model. Teachers also appreciated the ability of OTs to provide support to students in upper elementary grades who had not been identified as needing support in the lower grades, when the previous school-based service delivery system had prioritized early intervention. Overall, teachers appreciated that P4C occupational therapy support was responsive to their stated needs and saw few downsides to P4C, though several suggested that a small number of students may benefit from more formalized assessments, a departure from the P4C model.

Occupational therapists, another group of key stakeholders in this model, have also responded positively to implementing Partnering for Change. Campbell et al. (2012) conducted a qualitative study consisting of semi-structured interviews with seven occupational therapists who had delivered P4C in 10 elementary schools in Ontario. Therapists, especially those who had never worked in a school before, expressed that they had originally felt apprehensive about entering the school environment and approaching teachers, but that they gained new professional skills, such as increased capacity for collaboration and increased awareness of how typical occupational therapy approaches may (or may not) translate to the classroom environment. Therapists also found value in the feeling of being part of the school community that was enabled by the collaborative nature of P4C. Similarly, the majority of therapists endorsed the idea that the decisive element in determining whether P4C is successful is the relationship between the OT and collaborating teachers. Therefore, intentional relationship-building was seen as paramount by the therapists interviewed. While therapists found that the consistency of their presence in the school (one full day several times per month, spent on in-context collaboration, versus sporadic consultation visits focused on one particular child) facilitated both this relationship-building and their ability to make a positive impact more broadly, they also felt that they still did not have enough time to respond to all teacher requests. The difficulty of balancing teacher desires for individualized support for particular children with

the P4C focus on population-level services was also noted as a challenge. However, study participants overwhelmingly felt that P4C was a vast improvement over more traditional models.

The original Partnering for Change model (Missiuna et al., 2012) did not include caregivers³ as stakeholders. However, after testing the model and receiving feedback, researchers realized that family engagement was a necessary component of any inclusive service-delivery model, both because the barriers affecting children's full participation at school may also affect their participation at home and in the community, and because family engagement has been shown to be critical to the success of inclusive schooling more broadly (Haines et al., 2015). Caregivers also offer a unique perspective and helpful expertise on their child's strengths and challenges. In an ideal implementation of P4C, families would act as equal partners with therapists and teachers in determining the best courses of action for their children, both at school and at home. Therapists might offer general education on their own role and typical developmental milestones to all caregivers at a school, and seek out more intensive collaboration with parents of children identified as needing Tier 2 and 3 interventions (Kennedy et al., 2020). However, therapists have noted family engagement as a primary challenge in implementing P4C, for a variety of reasons. Kennedy et al. (2020) conducted a qualitative study consisting of focus groups followed by direct content analysis with 15 occupational therapists who provided P4C services as part of Missiuna and colleagues' 2-year evaluative study. Therapists identified key factors that influenced their collaboration with families. Many of these factors were directly linked to logistical hurdles inherent in both school-based service delivery in general and P4C specifically, such as limited time to collaborate with teachers, deliver individualized services, and connect with families; lack of caregiver awareness of P4C services being offered; caregiver unwillingness to accept that their child was struggling at school; difficulty connecting in real-time with families in which the adults worked during the day; and

³ The official P4C model (Missiuna et al., 2017; see Figure 2) uses the word "parents" to refer to family involvement. In recognizing diverse family structures, I will instead use the word "caregivers" to refer to adults with whom a child lives and who provide care for the child.

language barriers and cultural differences within diverse schools. The researchers concluded that family engagement is likely the weakest component of P4C as it currently exists and recommended continued innovation, as well as training and mentorship of therapists, to mitigate these challenges. As sociodemographic and school-wide organizational factors were noted as decisive in therapists' ability to connect with families, such efforts would likely need to be adapted to the specific school context. However, caregiver satisfaction with P4C as delivered in the 2-year evaluative study was nonetheless high. 83.7% of caregivers of children receiving Tier 2 and 3 services said that they found P4C to be beneficial to their child and/or family (Partnering for Change, n.d.), even as some parents requested more engagement with the P4C therapist, such as more frequent in-school meetings and workshops.

Partnering for Change was originally designed for the specific context of Ontario public elementary schools. Much like variations in public schooling across U.S. states, Canadian provinces have different educational authorities and approaches to inclusive education (Camden et al., 2021). P4C has been adapted for British Columbia and Québec, but only the Québec implementation has been studied and documented as an example of how P4C might be adaptable to other regional and country contexts. Québec educational services differ significantly from those in Ontario, most importantly for P4C services in that Québec schools have not historically offered school-based occupational therapy services, other than occasional consultations for students already being seen in outpatient rehabilitation clinics. Camden et al. (2021) studied the trial implementation of P4C in two Québec primary schools. Two therapists were trained in P4C implementation and were asked to log their time usage by level of intervention (Tier 1, 2, or 3). Additionally, therapists and eleven other school stakeholders (parents, teachers, and administrators) participated in semi-structured interviews about their impressions of implementing P4C. Results of this study were similar to those of previous studies, suggesting that P4C is able to be adapted across contexts. Most notably, fidelity to the model was maintained, with therapists spending most of their time implementing Tier 1

Perspectives on Neurodiversity-Affirming Education

interventions. Additionally, school stakeholders had overwhelmingly positive responses to the presence of the P4C therapist, although it is unknown whether the response would have been equally as positive had the occupational therapist implemented traditional pull-out service delivery. Collaboration and intentional relationship-building were noted as keystones to the success of the model, echoing previous studies. Ultimately, this study suggests that it is possible to implement P4C outside of Ontario, but that attention must be paid to differing educational contexts across regions in order to be successful.

Given the success of P4C and its relatively strong evidence base, it is unsurprising that occupational therapists providing school-based services have broadened its scope to address a number of challenges outside the domain of motor coordination, including many that are common barriers to inclusion for autistic students, such as learning disabilities, executive functioning, sensory sensitivities, emotional regulation, and social interaction difficulties (Missiuna et al., 2017). Indeed, given that flexibility is a key component of P4C, it is especially well-suited to meet the needs of autistic children, whose needs and abilities may vary widely. While Rtl has been used as a service delivery model for autistic children in schools (Grandisson et al., 2019), and the 2-year P4C study (Missiuna et al., 2017) included seven autistic children (which is unsurprising, given that many autistic children have co-occurring DCD or other motor challenges (Nordin et al., 2021)), there have been no studies to date examining the feasibility of P4C in serving the specific needs of this population. However, P4C has promise in addressing key barriers to autistic inclusion in schools, and there is not currently a comprehensive school-based service delivery model for autistic children that is able to address the domains of academics, behavior, social interactions, and teacher efficacy. Moreover, among school-based service delivery methods, P4C is outstanding in that it is fully neurodiversity-affirming. As opposed to removing children from their inclusive classrooms for therapeutic activities with the goal of making them more suitable for that environment, P4C literally meets children where they are through service delivery in-context. P4C recognizes that many disorders, such as DCD and

25

autism, do not "go away", and that changing the environment is more effective than trying to change the child. P4C attempts to remove the burden from neurodivergent children to conform to the expectations of an environment that is not built for them and to instead empower teachers to make necessary changes to facilitate full inclusion. Finally, because of its emphasis on identifying any child who is struggling rather than prioritizing a formal diagnosis, P4C can help children who have not yet been identified with autism but who are demonstrating autistic traits.

Partnering for Change for Autism

Partnering for Change for Autism (P4C4A) will be centered around the same RtI-inspired model as the original Partnering for Change, in which occupational therapists offer collaborative coaching in context to general education teachers, in order to remove barriers and facilitate full participation for all students and to offer differentiated instruction and accommodations to students with higher needs. However, given the unique nature of the needs of autistic students, P4C4A will contain a number of components that differ from the original P4C model.

Coordination and collaboration between multiple service professionals

Given that many autistic students are already receiving services from several school-based professionals (as opposed to students with DCD, who, absent any co-occurring conditions, likely only need occupational therapy services to address their needs), P4C4A will expand the original P4C model to include all school-based service professionals who typically provide either pull-out or in-context services. Depending on the school and the child, this could include occupational therapists, speech-language pathologists, physical therapists, social workers, school-based mental health therapists, school psychologists and counselors, special education teachers, and behavioral specialists. In P4C4A, while each provider will retain their distinct role and area of expertise, their focus will shift from individual students to the entire school environment. For example, a school counselor may assist with implementing school-wide behavior supports as well as collaborate with individual teachers to brainstorm interventions for students struggling with self-regulation. In this model, productive collaborative relationships

Perspectives on Neurodiversity-Affirming Education

between teachers and service providers as well as between different service providers will become even more important. Since service providers with different types of training may have overlapping areas of professional expertise (for example, an occupational therapist and a behavioral specialist may both assist a child with self-regulation), they will be able to propose different approaches to a problem, increasing each other's knowledge as well as that of the teacher. Care should be taken by all stakeholders to build a culture in which such overlap is considered positive and beneficial for students' success, rather than a cause for defensiveness.

Because of the complexity and variability of the needs of autistic students and the busy schedules of teachers and service providers, it will be essential that one service provider take on the role of service coordinator. A social worker, if there is one in the specific school, may be particularly well-qualified for this position, but a school counselor or even another type of professional may also fill this role given the willingness and some additional training. The coordinator will make sure that roles and responsibilities are clearly defined. The coordinator will also keep track of the services that each student is receiving and may also assist with referrals for therapeutic services not offered in the school setting. The coordinator will also regularly meet, either formally or informally, with all stakeholders to troubleshoot any logistical or collaboration problems.

Service professional time spent at school

In the 2-year evaluative study of P4C (Missiuna et al., 2017), occupational therapists did not work full-time at each school. Instead, as is typical in Ontario, therapists were employed by local rehabilitation services, and were contracted to provide services in specific schools one day per week. For both P4C and P4C4A, it is preferable that professionals spend as much of their working time as possible in the school setting. While P4C has achieved significant success with therapists working only one day a week in a particular school, difficulty juggling many demands in a limited period of time was consistently cited as a limitation of the model (Camden et al., 2021; Campbell et al., 2012; Wilson & Harris, 2017). The more time that professionals spend at

27

one school, the more they are able to build relationships with both students and other staff. In the United States, it seems to be more common for school districts to hire service providers to work full or half-time in one particular school (or sometimes to split time between schools). However, such practices likely vary widely between states and school districts. Regardless of a school district's current practices, a strategy that maximizes both limited funding and the ability to serve students may be to have a "core team" of 3-4 service providers who implement P4C4A exclusively in one or two schools (and who are thus very familiar with the school context and students), in addition to a robust roster of consultants with different professional backgrounds who may visit the school to provide P4C4A services weekly, biweekly, or monthly.

Increased ability to conduct Tier 3 interventions

Across studies, both therapists and teachers noted that teachers often wished that therapists had more capacity to conduct Tier 3 interventions with students with the highest levels of need (Camden et al., 2021; Missiuna et al., 2017; Wilson & Harris, 2017). Moreover, some teachers, while acknowledging the value of in-context services, expressed their view that for some students with newly identified challenges, an individualized diagnostic assessment may be useful, even as P4C de-emphasizes diagnosis in favor of immediate, responsive support (Wilson & Harris, 2017). For students newly identified with challenges that may indicate a diagnosis of autism, this may be especially true, as a formalized diagnosis may allow access to services outside of the school setting, inform therapeutic and educational decision-making, and help families and children understand why the child has been struggling. While for many children, an actual diagnosis of autism may not be provided by a school-based practitioner. P4C4A providers should keep track of which children may benefit from a formal diagnosis (or other services not provided in the school setting) and provide timely referrals (another task managed by the service coordinator). Similarly, there may be some areas in which individualized services must be provided via pull-out (for example, some types of mental health therapy). In order to flexibly address students' needs, P4C4A providers should have the ability to conduct

pull-out services when necessary. However, in order to maintain fidelity to the P4C model, in which the entire school population is the client, the focus should always remain primarily on Tier 1 interventions, as well as on collaborating with and coaching teachers. For example, an occupational therapist, school counselor, or behavior specialist with knowledge of the sensory aspects of autism may help a teacher reduce the sensory demands of the classroom, such as by replacing fluorescent lighting with lamps, or they may help a teacher reduce transition-related anxiety for all children by introducing a visual schedule of the day's activities. Through this focus on population-level interventions, providers engage in prevention, which then limits the number of Tier 3, pull-out services they must conduct.

Limitations

While P4C4A is a promising model, there are a number of concerns and limitations that must be addressed. Most broadly, the success of the model depends on the culture of the individual school (and to some extent the school district or other larger governing body). Whether a school has a culture wherein inclusion is valued has been identified as a key factor in the success of interventions for disabled students (Haines et al., 2015). The perspectives on inclusion of key stakeholders such as teachers and administrators can also influence and be influenced by the culture of the school (Grandisson et al., 2019; Kennedy et al., 2018). Therefore, P4C4A will be most successful in schools in which teachers and administrators are already strongly in support of meaningful inclusion of disabled students in general education classrooms. Moreover, just as schools and school districts differ in the cultural value placed on inclusive education, they also differ in resources allocated and available to allocate for disabled students. P4C4A will be most successful in a school environment where there are school-based service professionals with expertise appropriate to the needs of the students, and when these professionals can dedicate all their working hours to serving one school, rather than dividing their time and attention between several. Additionally, large class sizes make it more difficult for teachers to conduct Response to Intervention with one specific student, which will be a key

component of P4C4A. Large class sizes, limited planning time, and an excess of paperwork may also make it difficult for teachers to find time to collaborate with service providers.

Other limitations pertain less to the structures of the educational system and more to the implementation of P4C4A itself. As P4C4A and other population-level approaches may differ significantly from professionals' previous approaches, comprehensive training should be provided to all professionals in a school prior to implementation. Occupational therapists implementing P4C for the first time in a study by Campbell and colleagues (2012) received a half-day of training from a therapist experienced with the model. However, many occupational therapists in the study were already familiar at some level with Rtl and other population-level service delivery models. Therefore, professionals in fields where intervention is usually conducted mostly at the individual level may need more training to ensure comfort with and fidelity to the model. Ideally, training should be conducted by another service provider from the same profession with experience delivering P4C4A.

Finally, in a model that is built on relationships between teachers and providers, it will be essential that all stakeholders attend to the dynamics of these relationships. Open, honest, and respectful communication will be crucial; as will be the understanding that each team member has unique expertise to bring to the table. While service professionals engage in coaching of teachers, it is with the goal of imparting specialized knowledge, not to elevate this knowledge above the pedagogical and classroom expertise of the teacher. Strategies for intentional maintenance of working relationships should be covered in initial P4C4A training and the role of the service coordinator should also include regular check-ins to ensure that all team members are heard and their concerns addressed.

While P4C4A aims to be comprehensive in that it will incorporate all the services an autistic child might receive at school, it will not be inclusive of all autistic children. This intervention will improve services for students who already spend at least part of their school day in general education classrooms. It will not address the needs of autistic students who

spend the majority or all of their school day in a special education classroom, who are more likely to be minimally speaking or have an intellectual disability (White et al., 2007). Additionally, both P4C and P4C4A are targeted to elementary school students. Autistic middle and high school students have needs that are both similar and different, given the lifelong nature of ASD as well as the change in school organization at these levels. Future research should examine neurodiversity-affirming service delivery among this population.

Conclusion

With a rise in the rates of children identified with autism coinciding with increasing pushes for including disabled children in general education classrooms, many autistic students are spending significant portions of their school days in a general education classroom. While there are clear benefits to inclusive education, there are also specific barriers to inclusion for autistic students, and many receive school-based therapeutic services to address these barriers. The neurodiversity paradigm critiques therapeutic approaches that aim to change autistic people to fit societal expectations and instead advocates for changing environments to be more accessible to autistic people and for providing services that maximize an autistic person's agency over their own life. Population-level, multi-tiered school-based service delivery models such as Response to Intervention and its derivative, Partnering for Change, take a neurodiversity-affirming approach to providing school-based services, though neither is specifically designed to address the barriers specific to inclusion of autistic students.

P4C4A is a promising school-based, neurodiversity-affirming service delivery model for autistic elementary school students which will improve teacher efficacy in serving this often difficult population. It will ensure that autistic students receive the services that are necessary to their success while affirming that their way of being is different, not pathological. This practical and philosophical shift will increase full school inclusion and may in turn promote feelings of school connectedness and lower rates of school-related anxiety for autistic students.

References

- American Psychological Association. (2022). Autism Spectrum Disorder. In *Diagnostic and statistical manual of mental disorders* (5th ed., text rev.).
- Anaby, D. R., Campbell, W. N., Missiuna, C., Shaw, S. R., Bennett, S., Khan, S., Tremblay, S., Kalubi-Lukusa, J., & Camden, C. (2019). Recommended practices to organize and deliver school-based services for children with disabilities: A scoping review. *Child: Care, Health and Development, 45*(1), 15-27. <u>https://doi.org/10.1111/cch.12621</u>
- Anaby, D. R., Ianni, L., Héguy, L., & Camden, C. (2020). Actual and ideal roles of school staff to support students with special needs: Current needs and strategies for improvement. *Support for Learning*, 35(3), 326-345. <u>https://doi.org/10.1111/1467-9604.12313</u>
- Anglim, J., Prendeville, P., & Kinsella, W. (2018). The self-efficacy of primary teachers in supporting the inclusion of children with autism spectrum disorder. *Educational Psychology in Practice*, 34(1), 73-88. <u>https://doi.org/10.1080/02667363.2017.1391750</u>
- Autism and Developmental Disabilities Monitoring Network. (2023). *Community Report on Autism, 2023.* Centers for Disease Control and Prevention.

https://www.cdc.gov/ncbddd/autism/pdf/ADDM-Community-Report-SY2020-h.pdf

Baio, J., Wiggins, L., Christensen, D.L., Maenner, M.J., Daniels, J., Warren, Z.,
Kurzius-Spencer, M., Zahorodny, W., Rosenberg, C.R., White, T., Durkin, M.S., Imm, M.,
Nikolaou, L., Yeargin-Allsopp, M., Lee, L., Harrington, R., Lopez, M., Fitzgerald, R.T.,
Hewitt, A., ... Dowling, N.F. (2018). Prevalence of autism spectrum disorder among
children aged 8 years — Autism and Developmental Disabilities Monitoring Network, 11
sites, United States, 2014. *Morbidity and Mortality Weekly Report—Surveillance Summaries,* 67(6), 1-23. http://dx.doi.org/10.15585/mmwr.ss6706a1

Camden, C., Campbell, W., Missiuna, C., Berbari, J., Héguy, L., Gauvin, C., Dostie, R., Ianni, L., Rivard, L., & Anaby, D. (2021). Implementing partnering for change in Québec:
Occupational therapy activities and stakeholders' perceptions. *Canadian Journal of Occupational Therapy, 88*(1), 71-82. <u>https://doi.org/10.1177/0008417421994368</u>

Campbell, W. N., Missiuna, C. A., Rivard, L. M., & Pollock, N. A. (2012). 'Support for everyone':
 Experiences of occupational therapists delivering a new model of school-based service.
 Canadian Journal of Occupational Therapy, 79(1), 51-59.

https://doi.org/10.2182/cjot.2012.79.1.7

- Cherewick, M., & Matergia, M. (2023). Neurodiversity in practice: A conceptual model of autistic strengths and potential mechanisms of change to support positive mental health and wellbeing in autistic children and adolescents. *Advances in Neurodevelopmental Disorders*. <u>https://doi.org/10.1007/s41252-023-00348-z</u>
- Centers for Disease Control and Prevention. (2022, March 8). *Signs and symptoms of autism spectrum disorder*. <u>https://www.cdc.gov/ncbddd/autism/signs.html</u>
- Cook, J., Hull, L., Crane, L., & Mandy, W. (2021). Camouflaging in autism: A systematic review. *Clinical Psychology Review, 89* <u>https://doi.org/10.1016/j.cpr.2021.102080</u>
- Crosland, K., & Dunlap, G. (2012). Effective strategies for the inclusion of children with autism in general education classrooms. *Behavior Modification, 36*(3), 251-269. https://doi.org/10.1177/0145445512442682
- Cunningham, M. (2022). 'This school is 100% not autistic friendly!' Listening to the voices of primary-aged autistic children to understand what an autistic friendly primary school should be like. *International Journal of Inclusive Education, 26*(12), 1211-1225. https://doi.org/10.1080/13603116.2020.1789767

- Dawson, G., Franz, L., & Brandsen, S. (2022). At a crossroads—reconsidering the goals of autism early behavioral intervention from a neurodiversity perspective. *Journal of the American Medical Association Pediatrics*, 176(9), 839-840. https://doi.org/10.1001/jamapediatrics.2022.2299
- Gernsbacher, M. A. (2017). Editorial perspective: The use of person-first language in scholarly writing may accentuate stigma. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, *58*(7), 859–861. <u>https://doi.org/10.1111/jcpp.12706</u>
- Grandisson, M., Émilie Rajotte, Godin, J., Myriam Chrétien-Vincent, Élise Milot, & Desmarais, C.
 (2020). Autism spectrum disorder: How can occupational therapists support schools?
 Canadian Journal of Occupational Therapy, 87(1), 30-41.
 https://doi.org/10.1177/0008417419838904
- Haines, S. J., Gross, J.M.S., Blue-Banning, M., Francis, G. L., & Turnbull, A. P. (2015).
 Fostering family–school and community–school partnerships in inclusive schools. *Research and Practice for Persons with Severe Disabilities, 40*(3), 227-239.
 https://doi.org/10.1177/1540796915594141
- Hodges, A., Cordier, R., Joosten, A., & Bourke-Taylor, H. (2022). Closing the gap between theory and practice: Conceptualisation of a school-based intervention to improve the school participation of primary school students on the autism spectrum and their typically developing peers. *Journal of Autism and Developmental Disorders, 52*(7), 3230-3245. https://doi.org/10.1007/s10803-021-05362-5
- Kennedy, J., Missiuna, C., Pollock, N., Wu, S., Yost, J., & Campbell, W. (2018). A scoping review to explore how universal design for learning is described and implemented by rehabilitation health professionals in school settings. *Child: Care, Health and Development, 44*(5), 670-688. <u>https://doi.org/10.1111/cch.12576</u>

- Kennedy, J. N., Missiuna, C. A., Pollock, N. A., Sahagian Whalen, S., Dix, L., & Campbell, W. N. (2020). Making connections between school and home: Exploring therapists' perceptions of their relationships with families in partnering for change. *The British Journal of Occupational Therapy*, *83*(2), 98-106. <u>https://doi.org/10.1177/0308022619876560</u>
- Kenny, L., Hattersley, C., Molins, B., Buckley, C., Povey, C., & Pellicano, E. (2016). Which terms should be used to describe autism? Perspectives from the UK autism community. *Autism*, 20(4), 442-462. <u>https://doi.org/10.1177/1362361315588200</u>
- Lindsay, S., Proulx, M., Thomson, N., & Scott, H. (2013). Educators' challenges of including children with autism spectrum disorder in mainstream classrooms. *International Journal* of Disability, Development and Education, 60(4), 347-362. https://doi.org/10.1080/1034912X.2013.846470
- Missiuna, C. A., Pollock, N. A., Levac, D. E., Campbell, W. N., Whalen, S. D. S., Bennett, S. M., Hecimovich, C. A., Robin Gaines, B., Cairney, J., & Russell, D. J. (2012). Partnering for Change: An innovative school-based occupational therapy service delivery model for children with developmental coordination disorder. *Canadian Journal of Occupational Therapy*, 79(1), 41-50. <u>https://doi.org/10.2182/ciot.2012.79.1.6</u>
- Missiuna, C., Pollock, N., Campbell, W., DeCola, C., Hecimovich, C., Whalen, S. S., Siemon, J., Song, K., Gaines, R., Bennett, S., McCauley, D., Stewart, D., Cairney, J., Dix, L., & Camden, C. (2017). Using an innovative model of service delivery to identify children who are struggling in school. *The British Journal of Occupational Therapy, 80*(3), 145-154. https://doi.org/10.1177/0308022616679852
- Munkhaugen, E. K., Gjevik, E., Pripp, A. H., Sponheim, E., & Diseth, T. H. (2017). School refusal behaviour: Are children and adolescents with autism spectrum disorder at a higher risk?

Research in Autism Spectrum Disorders, 41-42, 31-38.

https://doi.org/10.1016/j.rasd.2017.07.001

- Nordin, A.M., Ismail, J., & Nor, N.K. (2021). Motor development in children with autism spectrum disorder. *Frontiers in Pediatrics*, *9*, 1-7. <u>https://doi.org/10.3389/fped.2021.598276</u>
- Partnering for Change. (n.d.) *Partnering for Change: Implementation and Evaluation,* 2013-2015. <u>https://www.partneringforchange.ca/</u>
- Rose, V., Trembath, D., Keen, D., & Paynter, J. (2016). The proportion of minimally verbal children with autism spectrum disorder in a community-based early intervention programme. *Journal of Intellectual Disability Research, 60*(5), 464-477. <u>https://doi.org/10.1111/jir.12284</u>
- Singer, J. (2017). *NeuroDiversity: The birth of an idea*. Self-published.
- Timmons, V., & Wagner, M. (2009). *Inclusive education knowledge exchange initiative: An analysis of the Statistics Canada Participation and Activity Limitation Survey.* Canadian Council on Learning.

http://en.copian.ca/library/research/ccl/inclusive_edu_know/inclusive_edu_know.pdf

- U.S. Department of Education. (2020, March 3). OSEP Fast Facts: Children Identified with Autism. Individuals with Disabilities Education Act. https://sites.ed.gov/idea/osep-fast-facts-children-with-autism-20/
- U.S. Department of Education (n.d.). *About IDEA*. Individuals with Disabilities Education Act. https://sites.ed.gov/idea/about-idea/#IDEA-History
- Wei, X., Wagner, M., Christiano, E. R., Shattuck, P., & Yu, J. W. (2014). Special education services received by students with autism spectrum disorders from preschool through

high school. The Journal of Special Education, 48(3), 167–179.

https://doi.org/10.1177/0022466913483576

White, S. W., Scahill, L., Klin, A., Koenig, K., & Volkmar, F. R. (2007). Educational placements and service use patterns of individuals with autism spectrum disorders. *Journal of Autism and Developmental Disorders*, *37*(8), 1403-1412.

https://doi.org/10.1007/s10803-006-0281-0

- Wilson, A. L., & Harris, S. R. (2018). Collaborative occupational therapy: Teachers' impressions of the Partnering for Change (P4C) model. *Physical & Occupational Therapy in Pediatrics, 38*(2), 130-142. <u>https://doi.org/10.1080/01942638.2017.1297988</u>
- Yi, H., & Queenie, K. Y. S. (2021). "His inner-self must be good": An ethnographic-vignette study of social interactions between children with autism spectrum disorder and typically developing peers. *Journal of Social and Personal Relationships, 38*(1), 232-255. <u>https://doi.org/10.1177/0265407520959456</u>

Chapter 2

Inclusion for All?: Ideological Considerations for Educational Placements of Autistic Students with High Support Needs

As established in Chapter 1, students with autism spectrum disorder face a variety of barriers in accessing education that meets their unique needs. Autism diagnoses are currently delineated by levels, which indicate the amount of support needed by the autistic person (APA, 2022). Autistic students with higher support needs are more likely than those with lower support needs to be excluded from general education, for a variety of reasons (Ahlers et al., 2022; Sansosti & Sansosti, 2012; White et al., 2007). This chapter will examine the landscape of educational placement decision-making for autistic students with high support needs through an ideological lens, with a particular focus on parents⁴, who are often the most influential advocates and decision-makers for children with high support needs (Prichep, 2014).

In Chapter 1, I discussed the barriers to full inclusion in general education for autistic elementary school students and how school-based therapeutic services may help mitigate these barriers. I critiqued the fact that these services are frequently delivered by removing the autistic student from the general education classroom, which compromises the goal of inclusion. I then examined several models which aim to improve the provision of services for disabled students more broadly. Finally, I proposed adapting one such model, Partnering for Change (Missiuna et al., 2012), specifically for autistic students. The adapted model, Partnering for Change for Autism, prioritizes keeping the child in the general education classroom while comprehensively addressing their therapeutic needs. It also meets the criteria for a neurodiversity-affirming intervention, as it aims to change the classroom environment to be more accessible for autistic students, rather than forcing autistic children to conform to neurotypical norms in order to be included.

⁴ In Chapter 1, I used the word "caregivers" to acknowledge the diversity of family stakeholders who might be considered collaborators within the P4C4A model. However, since all of the literature I reviewed for this chapter refers to "parents", I defer to that language here.

While Partnering for Change for Autism is a promising model which could greatly improve the school experiences of autistic children spending most of their school time in general education classrooms, this is only one subset of the autistic K-12 population. During the process of reviewing the literature on inclusion, I found limited information on autistic students who spend most of their school time in separate special education classrooms, sometimes referred to as "self-contained" settings. Educational decision-making and inclusion policies for autistic elementary school students deserve special attention, as research suggests that once students are placed in a more restrictive setting, often in early elementary school, they are likely to remain there (White et al., 2007). Indeed, almost all of the limited scholarship in this area focuses on the elementary school context, and in keeping with Chapter 1, I maintain this focus here, while drawing on broader resources when relevant.

This chapter considers the issue of educational placements for autistic children with high support needs by placing autistic well-being at the forefront. In doing so, it aims to privilege autistic perspectives, especially those of individuals with high support needs. However, it is necessary to acknowledge that direct public commentary on educational experiences from such individuals is rare. Communication barriers, combined with ableist societal structures, limit the ability of autistic people to contribute to the public discourse about their own experiences. This chapter's focus on younger children, when most autistic advocates are adults, presents a further challenge. While many adult autistic advocates have been outspoken about their negative experiences with applied behavior analysis and other therapies, I found limited accounts of elementary school experiences. In view of the limited availability of autistic voices on this issue, and the challenges of conducting interviews with this population, I have instead aimed to analyze a variety of resources on this topic through an autistic lens, primarily by utilizing the neurodiversity paradigm, which I explained in detail in Chapter 1. Analysis through a neurodiversity lens challenges the dominant deficit-focused narrative of autism that is often present in popular and scholarly writing and instead prioritizes autistic wellbeing and agency,

Perspectives on Neurodiversity-Affirming Education

even for young children. It also allows for analysis of what is often left unsaid in mainstream writing on autism, which may only be visible to an autistic eye. However, this analysis cannot completely diffuse the tension between so-called "experts" (special education scholars and professionals), parents and caregivers of autistic people, and autistic self-advocates, as will be evident throughout this chapter. In an effort to capture as many of these perspectives as possible, I reviewed websites and blogs frequented by members of the autism community as well as academic scholarship. My writing of this chapter has also been informed by several years of observation and passive participation in discourse on autistic education on social media, and my work in a general education classroom in which autistic students are included.

The question of the optimal placement for autistic students with high support needs has been addressed without resolution both by researchers and by autistic advocates, and while this chapter will consider different perspectives on this dilemma, it will not attempt to provide a concrete answer to this question, acknowledging that a one-size-fits-all solution is not likely to further the well-being of autistic students. Rather, this chapter will synthesize different ideological perspectives on this issue by examining tensions between the autistic neurotype and the education system as it currently exists, which necessitate trade-offs in educational decision-making. Beginning with the premise that education of autistic people should be neurodiversity-affirming, I will examine educational barriers specific to autistic people with high support needs, then discuss advantages and disadvantages of inclusive and self-contained settings for these students. I will also consider some of the key research and practical challenges inherent in this issue, before closing with a discussion of the role of different ideological approaches in placement decision-making.

"High Support Needs" and Education

While overall rates of educational inclusion of disabled students have increased in recent decades, in 2021, 34% of autistic students in United States public schools who qualified for services under the Individuals with Disabilities Education Act (IDEA) still spent the majority of

40

their school days in self-contained classrooms (National Center for Education Statistics, 2022). These students are more likely than those served in general education to have significant communication challenges, intellectual disability, and/or limited adaptive skills (White et al., 2007). With the removal of diagnostic subcategories of autism such as Asperger's Syndrome from the fifth edition of the American Psychological Association's Diagnostic and Statistical Manual of Mental Disorders (2013), and critiques by neurodiversity advocates of labels such as "high-functioning" as stigmatizing and often misleading (Autistic Self Advocacy Network, 2021), levels of needed support have become a new, widely accepted way of describing the "severity" of autism (APA, 2022). In reality, support needs are fluid, often changing throughout a person's life, and being nonspeaking or having an intellectual disability does not necessarily mean that a person will need constant one-on-one support, while some autistic people with average verbal language skills and no intellectual disability are not ever able to live or work independently (Autistic Self Advocacy Network, 2021). However, during the elementary school years, when early educational placement decisions are made (White et al., 2007), autistic traits are often at their most prominent, and autistic children will likely need significant support with early skill development, regardless of their eventual adult needs and abilities (McKenney et al., 2017). Thus, the definition of "high support needs" used in this chapter is intentionally broad, encompassing autistic children with intellectual disabilities, those who are nonspeaking and minimally speaking, whether or not they use augmentative and alternative communication, those whose behavior is dangerous to themselves or others resulting in a need for constant supervision, and those who need substantial support with essential activities of daily living (e.g., eating, toileting).

It is well-established that students with at least one of these characteristics are less likely to be meaningfully included in general education (Kauffman et al., 2018; Sansosti & Sansosti, 2012; White et al., 2007), despite a legal mandate in the United States that students with disabilities be given a "free appropriate public education" in the "least restrictive environment". However, what constitutes an "appropriate" education and the "least restrictive environment" for any particular student is subject to interpretation, which has resulted in significant debates between "traditionalists" who are in support of the "continuum of alternative placements" mandated by IDEA (with more restrictive placements for students with higher support needs), and "inclusionists" who believe that every student, regardless of needed support, should spend the majority of their school day in the general education classroom (Causton-Theoharis et al., 2011). While inclusionist theory and practice has gained significant ground in recent decades (see Chapter 1), the traditionalist perspective still dominates special education practice in the United States, partly because the continuum of alternative placements is enshrined in law (Kauffman et al., 2018; Causton-Theoharis et al., 2011). In theory, there are advantages to both approaches for autistic students with high support needs.

Possible Benefits of Inclusion

There is some evidence that suggests that inclusion in general education leads to better academic, health, and social outcomes for students with a variety of disabilities, including those termed "severe". Timmons and Wagner (2009) analyzed data on more than 140,000 disabled Canadian children between the ages of 5 and 14. Across disability type and severity, more time spent in general education was correlated with better physical and mental health, more academic progress, and more social integration with non-disabled peers, based on parental survey responses. While this study provides quantitative evidence in support of inclusion, its reliance on subjective parent reports and lack of establishment of causality do not allow for the drawing of definitive conclusions. In an extensive literature review, this was the only study found that provided a quantitative evaluation of inclusive education. However, from a theoretical perspective, there are certain obvious benefits to inclusion. Placing a disabled child in a general education classroom is likely to provide more seamless access to the general education curriculum (TIES Center, n.d.), which may facilitate the better academic progress reported by parents in Timmons and Wagner's study. While it is theoretically possible for students to receive instruction in the general education curriculum in a self-contained classroom, differing ability levels among students and a culture of lower academic expectations may leave some autistic students unchallenged (*Endrew F. vs. Douglas County School District,* 2017; Prichep, 2014). This may be especially frustrating for students whose higher support needs are linked to communication or self-regulation challenges, but who are capable of grade-level academic work with the right support (Bonker & Breen, 2013; Rao Sankar, 2021; Prichep, 2014).

Additionally, inclusion in general education provides access to non-autistic peers. For students with disabilities without a social component, this may be an unequivocal positive, but for autistic students, who have a unique style of social communication (Crompton et al., 2020), it is almost certainly more complex. While interactions with non-autistic peers can provide opportunities for friendship and social skill development (Bonker & Breen, 2013), it may also leave the autistic student vulnerable to bullying and in a state of social confusion or isolation (Yi, 2021; Zablotsky et al., 2014). While most studies on this topic have focused on autistic students with low support needs, it can be surmised that these risks may be heightened for students with high support needs, especially when those needs are in the area of social communication. Whether one views time with non-autistic peers as a positive or negative for autistic students likely depends on ideological orientation, which will be explored later in this chapter. However, there are also societal benefits which may result from students of different abilities being educated together. As Ari Ne'eman, outspoken autistic advocate and co-founder of the Autistic Self Advocacy Network, said in an interview with National Public Radio, "Inclusive schools give us the opportunity for inclusive societies" (Prichep, 2014). Indeed, in two small (fewer than 15 participants) focus group studies, one of the benefits of inclusion of autistic students most often cited by general education teachers who had taught at least one autistic student with lower support needs was that the student broadened the worldviews of the non-autistic students in the class and offered an opportunity to learn about difference (Anglim et al., 2018; Lindsay et al.,

2013). Larger, quantitative studies on this topic suggest that non-disabled students' attitudes toward disability may indeed be changed by meaningful contact with disabled students. However, such attitude changes seem to depend on close contact, such as working together on a group project, rather than simple exposure (Loeper et al., 2022; Schwab, 2017). While inclusion certainly provides more opportunities for this kind of close contact, whether it is occurring in practice likely depends on the practices of individual schools and teachers.

Possible Benefits of Self-Containment

Similarly, benefits of self-contained settings remain theoretical. While traditionalist scholars and practitioners are in support of the "continuum of alternative placements", which includes general education, the consensus among this group is that it is students with higher support needs who should be placed in self-contained settings, for a variety of reasons. In their book Special Education: What It Is and Why We Need It, James M. Kauffman, a prominent traditionalist scholar, and colleagues summarize this "common sense" view of special education (Kauffman, 2018). One of their central arguments is that for students with intellectual and developmental disabilities, including autism, systematic, relentless, and explicit instruction is often necessary for learning even the most basic concepts. They contend that such students are unlikely to receive this kind of instruction in general education, even with the most competent, well-meaning teacher. Additionally, even if the teacher does provide this kind of rigorous instruction to the whole class, a student with high support needs is likely to be significantly behind their peers academically, creating yet another barrier to meaningful learning for the disabled student. Kauffman and colleagues, echoing previous scholarship (Fuchs & Fuchs, 1994), assert that too much diversity in needs and abilities makes a classroom unmanageable, negatively impacting learning for all students. Thus, they advocate for homogenous grouping of students based on ability, allowing the students to receive differentiated instruction from a teacher who is an expert in teaching students with particular needs (Fuchs & Fuchs, 1994). Traditionalists also argue that rigorous, data driven approaches to setting educational goals

(such as those in Individualized Education Plans) are more likely to be used by expert special educators working in self-contained settings (Kauffman et al., 2018).

In addition to supporting better academic outcomes for all, traditionalists contend that self-contained settings are more appropriate social and behavioral environments for students with high support needs. They argue that the smaller size of self-contained classes and the fact that all of the students are disabled may reduce bullying and allow the child to become a more integrated member of the class community, rather than on the margins (Landrum et al., 2003). For autistic students with high support needs in the area of social communication, this makes intuitive sense. Additionally, many traditionalists argue that challenging behavior is better managed in a self-contained setting, as teachers and staff are able to devote more time and energy to positive behavior management with fewer students, and are better trained in managing behaviors associated with specific disabilities (Landrum et al., 2003). Given previous cases of autistic students who were hurt and even died after being put in restraints at school as a form of behavior management (Abamu & Manning, 2019; Schuknecht, 2018), this is certainly a convincing argument. However, while many of these arguments have a common-sense appeal, there is a lack of quantitative evidence supporting the idea that self-contained settings really do deliver better outcomes for disabled students with high support needs, including autistic students.

Challenges to Research and Practice

As is evident in the preceding sections, special education scholarship, especially as relates to the inclusion dilemma, is mostly theoretical. This is in part due to the fact that conducting research in this area, especially quantitative or experimental research, is challenging. Existing data are often protected, and parental consent is needed for studies involving children. Researchers cannot ethically deny a child special education services, even temporarily, for the purpose of having an experimental control group (Kauffman et al., 2018). Thus, special education experts are limited in their ability to establish concrete evidence-based

45

guidelines for educational placements (Kauffman et al., 2018), and scholarship in this area frequently focuses on what would work in an ideal society, education system, school, or classroom. While scholars acknowledge the realities of limited funding and limited resources in a poorly structured education system, how these limited resources play out in practice differs massively across geographical areas, even within the United States. Class size (Anaby et al., 2020; Lindsay et al., 2013), teacher training (Anaby et al., 2020; Anglim et al., 2018; Lindsay et al., 2013), access to assistive technology (Anaby et al., 2020; Anglim et al., 2018; Lindsay et al., 2013), and even the layout of the school building (Ahlers et al., 2023) can all have implications for the success of inclusive education, and are not consistent across states or school districts.

Additionally, most debates between promoters of traditionalist or inclusionist practice assume that both the general education and self-contained settings are the best possible versions of themselves, with well-trained, expert teachers and adequate material and professional resources. This assumption may make sense for a theoretical debate but in practice is likely seldom true, and for many students, the quality, approach, and commitment of teachers in either setting may be the most important factor in determining the success of a placement. Causton-Theoharis and colleagues (2011) spent hundreds of hours observing the day-to-day happenings in six self-contained elementary school classrooms across three different states. The classrooms were in different school districts that included both urban, suburban, and rural schools. All but one of the classrooms had at least one autistic student, and two of the classrooms were exclusively for autistic students. The researchers found little to no engagement with the principles of self-contained special education as articulated by Kauffman and colleagues, or even quality education for neurotypical students. Student aggression toward other students was consistently tolerated by adults (teachers and paraprofessionals), students were prohibited from interacting with each other in meaningful ways, distractions from both other students and adults were rampant, instruction was often delivered by paraprofessionals rather than the teacher, significant time was spent on non-pedagogical activities, and the curriculum

was neither in line with state standards for general education nor the adaptive skill building that disabled students often require. Challenging behavior was managed reactively, including through the use of restraint and seclusion, and functional communication attempts were often ignored. While one cannot draw conclusions about all self-contained settings from a limited, dated study with a small sample size, this, along with anecdotal reports from autistic and other disabled people who have experienced such settings, point to the fact that practice is not always in line with theory.

This is also the case for inclusionist solutions such as Universal Design for Learning (UDL) and co-teaching, both discussed briefly and sympathetically in Chapter 1. But leaving aside the practical and systemic barriers to implementing such solutions (Anaby et al., 2020), it requires only a little bit of experience in an inclusive classroom to begin to generate hypothetical yet plausible situations that UDL will be hard-pressed to solve. In an example based on my own classroom experience, imagine a situation in which an autistic fourth grader with an intellectual disability spends her whole school day in a general education classroom. The class is working on identifying the main idea and details of a passage. The teacher provides both oral and visual instructions, in keeping with UDL. He asks the students to read a passage and fill out a graphic organizer with the main idea and details, which is available in both paper and electronic format to increase accessibility. He provides a choice between working in groups and independently, to accommodate different student needs. However, despite the attention to accessibility, the autistic student reads at a kindergarten level, and so is not able to read the passage. Even if someone else reads the passage out loud, her abstract thinking is not well-developed enough to identify the main idea and details. If the teacher tries to have her complete this activity that is too difficult, she will likely become frustrated and have a meltdown, pulling the attention of the teacher away from helping the other students with the reading comprehension activity and distracting her classmates. However, this is an important concept for the rest of the students to learn, upon which future literacy skills will build. The teacher might circumvent this problem by

having the student do an alternate activity, or perhaps, in a best-case scenario, a special education teacher would come to the classroom during this time and provide ability-appropriate reading instruction to the student. While this solution, provided the autistic student is not distracted by the bustle of the rest of the class working, would allow all students to have their educational needs met and remain in the general education classroom, its overuse would likely serve to further the gulf between the autistic student and her peers, resulting in the same perception that autistic people should be separate that is decried by many autistic advocates (Prichep, 2014).

Given this research and practice gap, the unquantifiable variations between classrooms, schools, districts, and states, and the vast differences in needs and abilities among autistic students, even those with high support needs, one-size-fits-all recommendations for educational placements are unlikely to result in the wellbeing and academic success of autistic students with high support needs. This leaves parents, teachers, and school-based professionals to decide which setting (general education or self-contained classroom, or time split between both) would be best for the student (Kauffman et al., 2018). While placement decision-making is shared among these stakeholders, parents' preferences are usually weighted heavily in determining the final outcome (McKenney, 2017). Thus, parents are forced to consider their educational priorities.

Goals of Education

Understanding the goals of K-12 education in general provides valuable context for comprehending the trade-offs faced by parents of autistic children with high support needs. While such goals vary depending on perspective, commonly cited are basic skill development (i.e., reading, writing, and arithmetic), development of positive character traits, social integration, preparedness for life and career after secondary school, student happiness and well-being, and transmission of democratic values (Hunzicker, 2023). In aiming to accomplish these goals in a public education system with limited resources and a wide diversity of students, tensions

Perspectives on Neurodiversity-Affirming Education

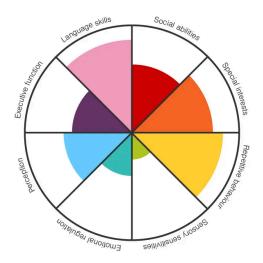
between different goals are inevitable, necessitating trade-offs. This is illustrated by an oft-resurrected debate about the use of instructional time and the value of standardized testing in the United States, especially amid evidence that many U.S. American students are falling behind grade-level standards in basic skills such as math and reading. While some educational policymakers encourage a "back-to-basics" approach aimed at raising standardized test scores in key areas, others are concerned about the developmental and mental health aspects of too much focus on academics, and instead advocate for a "whole-child" approach which prioritizes socio-emotional learning and student well-being (Wood, 2017).

For disabled students with high support needs, including autistic students, educational goals are similar, but progress may be measured in inches rather than in miles. A student with high support needs may work for years on a skill that is mastered in a few weeks by most typically developing students. The complexity and unpredictability of a student's needs and the smorgasbord of options that is the continuum of alternative placements tend to amplify the tensions between different educational goals. For nondisabled children in public schools, negotiating educational trade-offs tends to take place mostly at the policymaking level. While parents may decide to place their child in a private or charter school or in a public school with a particular approach that aligns well with their educational values (such as a Montessori or language immersion school), once they have made this decision, the details of the child's school day, the curriculum that is presented, and the quantity and context of their interactions with peers are factors over which parents have little influence. The individualized nature of special education means that for parents of disabled children with high support needs, this negotiation of trade-offs within an imperfect system is often constant and can contribute to frustration and fatigue (Bonker & Breen, 2013; Prichep, 2014; Vance, 2023).

The nature of autism may make these decisions even more difficult. While children with other disabilities are more likely to have a straightforward profile of strengths and challenges, autistic children may have varying skills across domains (see Figure 1). This means that a child may be academically prepared for general education, but unable to tolerate the environment from a sensory-behavioral perspective, or vice versa. Additionally, whereas with many other kinds of disabilities, the outlook for a child's future abilities is relatively clear, developmental disabilities by their nature become clearer over the period of a child's development. Autism is sometimes referred to as a "developmental delay", meaning that autistic people may eventually meet the same milestones as typically developing peers, but take longer to do so. This "delay" also contributes to the fact that for many autistic people, autistic traits are at their most prominent during early childhood (McKenney, 2017). While educational placements in the United States are theoretically flexible (a child can transition between self-contained and general education settings throughout their school career as is deemed necessary), a study by White and colleagues (2007) determined that once autistic students are placed in self-contained settings, usually in early elementary school, they are unlikely to move to a less restrictive setting. Thus, there may be pressure on parents to "get it right" the first time.

Figure 1

Autism Spectrum Wheel Illustrating Strengths and Challenges for One Autistic Individual



Note. From "Autism is a spectrum disorder," n.d., *Not Your Typical Ninja*, <u>https://notvourtypical.ninja</u>.

Beyond Inclusionist and Traditionalist: Ideological Conceptions of Autism

How stakeholders, including parents, approach placement decision-making will likely heavily depend on their understanding of autism. We can reasonably assume that the vast majority of parents, teachers, and professionals want the best for the autistic student in question, yet faced with similar trade-offs, they make drastically different decisions. Research is clear that abled and disabled students alike do better when parents are involved in their education (Haines et al., 2015). However, for autistic students, this involvement may come with its own set of complications. In an attempt to illuminate this, I will consider three ways of understanding autism and their relationships to educational decision-making for autistic people with high support needs: pathologizing, neurodiversity, and autistic rights.

Pathologizing

In Chapter 1, I began with the assumption that education of autistic students should be neurodiversity-affirming, in response to calls from autistic advocates and allies (Dawson et al., 2022). For our purposes, neurodiversity-affirming education means that autism is considered by all adults involved in the child's education (teachers, therapeutic service providers, paraprofessionals, etc.) to be a neutral neurological difference, not a disorder. In order to meet the criteria for neurodiversity-affirming education, the focus should be on supporting the autistic child's agency and well-being, rather than molding them to the neurotypical norm. The educational environment, curriculum, and activities should be designed to facilitate the autistic student's success. While the idea of neurodiversity-affirming education is gaining traction, especially for autistic students with lower support needs (Aitken & Fletcher-Watson, 2022; Dawson et al., 2022), autistic people with higher support needs are often still the subject of pathologizing rhetoric from parents and professionals. This is in some ways understandable, given the fact that the pervasive challenges experienced by many autistic people with high support needs can be disheartening and exhausting for both the autistic person and their

Perspectives on Neurodiversity-Affirming Education

caregivers. Exemplifying this perspective is Virginia Breen, the mother of Elizabeth Bonker, an advocate with nonspeaking autism⁵ who communicates using augmentative and alternative communication. In 2013, when Bonker was a young teenager, the two published a book containing Bonker's poetry and Breen's reflections on raising a child with nonspeaking autism. The title of the book, *I Am In Here*, is taken from one of Bonker's poems, yet it also seems to epitomize Breen's understanding of her daughter's autism: as a cage from which she has yet to be freed. Throughout the book, Breen describes the desperate lengths she went to throughout Bonker's childhood to attempt cure her autism or at least have her speak, even flying Bonker and her brother, who is also autistic, to the opposite coast of the United States to be prayed over by a pastor who offered a potential curative blessing.

Among teachers and school-based professionals, this kind of pathologizing approach continues to predominate. While prayers for children to be freed from the cage of autism may be absent, Individualized Education Plan (IEP) goals which mandate eye contact or require an autistic student to conform to other neurotypical social norms remain common. Often, educators and professionals who endorse the idea of autism as pathological also align with traditionalist perspectives on inclusion. Some educators take the perspective that autistic children should not enter general education unless and until they can fit more or less seamlessly into a general education classroom - in other words, autistic students should be modified, not the classroom or curriculum (Sansosti & Sansosti, 2012). Obviously, this is not in line with the idea of neurodiversity affirmation.

Interestingly, Breen, while viewing her daughter's autism as pathological, was strongly pro-inclusion when it came to Bonker's education. As a result of Breen's dogged advocacy with the school district, Bonker spent her elementary school years in a public school general education classroom, with a one-to-one aide. She was supported in using a computer to complete her schoolwork, was included in class activities like the school play, and made friends

⁵ I depart from my use of identity-first language here as it seems to be Bonker's preference.

with her neurotypical classmates. While it is impossible to get an unbiased picture of Bonker's education from the book, it appears that despite (or perhaps because of) her mother's view of autism as a cage in which her daughter is trapped, Bonker's elementary school experience was an example of effective neurodiversity-affirming, inclusive education for a person with autism and high support needs. The case of Bonker and Breen exemplifies how parental conceptions of autism may complicate the simple traditionalist versus inclusionist narrative.

Neurodiversity

The neurodiversity movement was developed in response to pathologization, with the idea of neutral neurological difference and social constructionist ideas of disability combining to create a new way of understanding autism. The idea of neurodiversity-affirming education has become its own progressive movement in education, with its own optimistic view of the ability of general education to not just accommodate, but truly celebrate, learners of different neurotypes, including autism (Aitken & Fletcher-Watson, 2022). Thus, neurodiversity-affirming education is closely tied to inclusionist ideology, as seen in Chapter 1, in which I proposed a new service delivery model to further neurodiversity-affirming approaches and increase inclusion for autistic elementary school students with low support needs. Many autistic advocates who strongly endorse the neurodiversity paradigm and social constructionist model also favor the end of all self-contained settings for disabled children (Autistic Self-Advocacy Network, 2021). "If we have an environment in which autistic people are over there, in that other classroom, in that other environment, it really sends a very clear message that we are not a part of your society," Ari Ne'eman said, exemplifying this perspective (Prichep, 2014). Universal Design for Learning is often touted as a means of accomplishing full inclusion for all (TIES Center, n.d.). Earlier in this chapter, I explored the potential pitfalls of UDL for autistic students with high support needs, and there may be additional challenges to the practice of neurodiversity-affirming education when it comes to this population.

Most forms of schooling situate the child within a community of learners, and in an ideal neurodiversity-affirming classroom, attention is paid to situating all ways of learning and being as equally valid. In this way, diversity in neurotypes becomes a valued part of the classroom community, situated alongside other types of diversity as a strength and something to be celebrated. Once again, especially for autistic students with high support needs, the reality may not live up to this ideal. Social communication challenges or engagement in behaviors that others consider odd or unpleasant may leave them on the periphery of the classroom community. Even when teachers model inclusion and communication across neurotypes and utilize curricula meant to increase appreciation for neurodiversity in the classroom, the result may be tolerance, rather than full integration. While such programs do exist (Hodges et al., 2021; Alcorn et al., 2022) they are in the early stages of development, and much more research is needed to determine whether they are effective in increasing the degree to which autistic students with all levels of support needs are integrated in school life. While one-to-one aides are sometimes seen as a solution that allows students with high support needs to be placed in general education (as in the case of Elizabeth Bonker), educators and scholars are divided over whether this actually constitutes full inclusion. If the majority of the student's interactions with peers and the curriculum are through an aide, some are concerned that this may simply constitute further marginalization within the classroom (Sansosti & Sansosti, 2012), which would not actually be in service of promoting neurodiversity.

Additionally, concern for the learning and wellbeing of non-autistic students is frequently cited by general education teachers as a challenge of having autistic students in general education (Anglim et al., 2018; Lindsay et al., 2013). Since the goal of neurodiversity-affirming education is to promote learning and wellbeing among people of all neurotypes, this is an important consideration. Autistic students, especially those with high support needs, require more socio-emotional and academic support than their peers. When educators spend a substantial amount of time attending to one autistic student, is that fair to their non-autistic

classmates who have their own needs? While this is a reasonable question, the issue of equity goes both ways. Because autistic students in general education are outnumbered by non-autistic students, they are likely to be required, either implicitly or explicitly, to adapt to neurotypical norms, even in a classroom that professes to value neurodiversity. This suppression of one's natural autistic traits to better fit in with neurotypical norms is often referred to by autistic people and researchers as "masking" or "camouflaging" and has been linked to negative mental health outcomes in autistic adults (Cook et al., 2021). IEP goals which aim to increase eye contact or reduce harmless sensory-seeking behaviors have been roundly criticized by autistic advocates and allies as promoting masking and are clearly contrary to the idea of neurodiversity-affirming education. However, even when goals like these are eliminated, autistic students with all levels of support needs may still experience severe sensory and social distress in a typical busy, loud, bright elementary school classroom. Students who are able often try to mask their discomfort until they can no longer do so, sometimes resulting in explosive meltdowns which heighten the risk for restraint and seclusion (Abamu & Manning, 2019; Aitken & Fletcher-Watson, 2022; Vance, 2023). While Universal Design for Learning and explicit engagement with neurodiversity may help mitigate these problems, the expectation that the autistic student should fit in with the established norms of the classroom is likely to be present at some level as long as they are outnumbered by neurotypical students.

Autistic Rights

The fact that neurodiverse spaces, including classrooms, may contribute to the continued marginalization of autistic people, some advocates have suggested that the best educational environments for autistic people are ones that are for autistic people only, and thus tailored to their specific needs. They argue that the best friends for autistic people are usually other autistic people, a position which is at least nominally supported by research into autistic communication styles (Crompton et al., 2020), as well as anecdotal evidence. Such advocates endorse the neutral neurological difference and social constructionist understanding of autism

and disability inherent to the neurodiversity paradigm, but rather than wait for society and systems to become more autism-friendly, they propose creating such spaces, including for education. For the purposes of this chapter, I will refer to this position as the autistic rights perspective.

Exemplifying this perspective is Terra Vance, an autistic mother and former teacher who now runs the website NeuroClastic, which dedicates itself to publishing writing on autism by autistic writers. In a 2023 piece for NeuroClastic, Vance details her autistic daughter's educational arrangements and explains why she refuses to enroll her child in public school. Vance's daughter was diagnosed with "severe" autism and intellectual disability during her pre-school years, so she qualifies for state-funded attendant care. Vance and her autistic husband use this money to pay another autistic person with expertise in education to homeschool their daughter. According to Vance, this arrangement has worked so well that her daughter is now considered "high-functioning" and academically advanced. Vance's daughter struggles with emotional regulation and has meltdowns which include self-harm. Through this educational arrangement, Vance and her daughter's teacher have been able to accommodate her daughter's needs and thus minimize the number of meltdowns she has, as well as teach her strategies to self-regulate. Vance's daughter is not socially isolated, as her teacher organizes regular play time with other neurodivergent children. With two autistic parents, an autistic teacher, and autistic friends, she appears to interact almost entirely with other autistic people. Vance argues that public school would ruin her daughter's carefully cultivated equilibrium and halt her academic progress. She rejects the idea that inclusion and neurodiverse spaces are a good thing, at least when it comes to her own family. In arguing that her daughter receives more effective teaching and behavior management in a specially tailored environment than she would in a public school general education classroom, Vance parrots traditionalist talking points. However, while traditionalists tend to take a pathologizing view of disabilities, including autism

(Kauffman et al., 2018), autistic rights thinkers like Vance tend to see autism as an inextricable, and even positive, part of their identity.

Autism-Specific Private Schools: An Ideological Soup

In addition to homeschooling, which is anecdotally a relatively popular choice among families with autistic children, a sizable and perhaps growing number of parents (Hurwitz et al., 2020) of autistic students of all levels of support needs opt out of navigating the trade-offs between general education and self-contained settings by eschewing public school in favor of specially tailored private schools, either for autism alone or in combination with similar disabilities. These schools are often expensive and thus only accessible to a small subset of families who have an autistic child with high support needs.

Of course, in addition to the financial aspect, this choice comes with other trade-offs, one being that, similar to homeschooling, autistic students lack any opportunity to interact with typically developing peers in the school environment. Even in a self-contained setting, an autistic student might eat lunch, have recess, or attend "specials" like music or art with general education peers. Some professionals and parents even find social and inclusive value in the simple proximity of the self-contained classroom to the larger school, even if the students don't have a chance for meaningful interaction (Ahlers et al., 2023) Once again, more research is needed into the effects of these "lighter" forms of inclusion. However, for some families whose children have struggled with bullying or overstimulation in a typical school environment, this trade-off may be seen as a positive. Here, the waters of inclusion ideology again become muddy. Private schools for autism and similar conditions often (though not always) take an ABA-informed approach, or otherwise focus on encouraging verbal speech and reducing self-stimulation. Evidently, this is in direct opposition to the approaches favored by proponents of autistic rights thinking. However, autistic rights thinkers are also likely to support the existence of spaces for autistic people only, that are specifically tailored for the autistic neurotype. Autism-specific private schools at least partially meet this requirement, though autistic rights

thinkers would probably prefer that the adults who work at these schools are also autistic, or at least strongly aligned with autism-affirming approaches.

Conclusion

Autistic students with high support needs experience unique educational challenges and are less likely to be included in general education in the United States. The best educational placement for this population will depend on the student's particular needs and abilities and the options available to them and their family. Choosing a placement for most students requires stakeholders to prioritize certain educational goals over others. This process is made more difficult by the inconclusiveness of research on inclusive and self-contained settings for autistic students, especially those with high support needs. Thus, parents' ideological conceptions of autism are likely to affect their decisions.

While the social benefits of inclusion may be limited for autistic students, inclusion is also seen as a tool to create a more accepting and integrated society. This narrative, whether or not it holds true with further research, provides a compelling reason for governments, schools, and individual teachers and professionals to dedicate themselves to making inclusion work for students with all levels of support needs. However, the United States educational system as it currently exists is not equipped to provide for the success of every autistic student in general education. As Ari Ne'eman, an autistic self-advocate and strong proponent of inclusion put it, "I would never ask families to make a political statement with their children's future" (Prichep, 2014). For students whose needs are not easily met in general education, this situation becomes another possible trade-off. Is advocating for inclusion for all inadvertently sacrificing the wellbeing and appropriate education of some of society's most vulnerable individuals for a nebulous future benefit, even though autistic individuals with high support needs have much to gain from a truly inclusive society? Explicit, intentional efforts to seek perspectives on school experiences from autistic people with high support needs are needed to answer this question.

References

Abamu, J., & Manning, R. (2019, June 5). *Desperation and broken trust when schools restrain students or lock them in rooms.* National Public Radio.

https://www.npr.org/2019/06/05/726519409/desperation-and-broken-trust-when-schoolsrestrain-students-or-lock-them-in-room

- Ahlers, K., Hugh, M. L., Tagavi, D., Eayrs, C., Hernandez, A. M., Ho, T., & Locke, J. (2023). "On an island by myself": implications for the inclusion of autistic students in self-contained classrooms in public elementary schools. *Frontiers in Psychiatry*, *14*, 1241892. <u>https://doi.org/10.3389/fpsyt.2023.1241892</u>
- Aitken, D., & Fletcher-Watson, S. (2022, December 15). *Neurodiversity-affirmative education: Why and how?* The British Psychological Society.

https://www.bps.org.uk/psychologist/neurodiversity-affirmative-education-why-and-how

Alcorn, A.M., Fletcher-Watson, S., McGeown, S., Murray, F., Aitken, D., Peacock, L.J.J., & Mandy, W. (2022). Learning About Neurodiversity at School: A resource pack for primary school teachers and pupils. University of Edinburgh.

https://salvesen-research.ed.ac.uk/leans

- American Psychological Association. (2013). Autism Spectrum Disorder. In *Diagnostic and statistical manual of mental disorders* (5th ed.).
- American Psychological Association. (2022). Autism Spectrum Disorder. In *Diagnostic and statistical manual of mental disorders* (5th ed., text rev.).
- Anaby, D. R., Ianni, L., Héguy, L., & Camden, C. (2020). Actual and ideal roles of school staff to support students with special needs: Current needs and strategies for improvement. *Support for Learning*, 35(3), 326-345. <u>https://doi.org/10.1111/1467-9604.12313</u>

Anglim, J., Prendeville, P., & Kinsella, W. (2018). The self-efficacy of primary teachers in supporting the inclusion of children with autism spectrum disorder. *Educational Psychology in Practice*, 34(1), 73-88. <u>https://doi.org/10.1080/02667363.2017.1391750</u>

Autism Spectrum Wheel Illustrating Strengths and Challenges for One Autistic Individual [Image]. Not Your Typical Ninja. <u>https://notyourtypical.ninja/</u>

Autistic Self Advocacy Network. (2021, December 9). *Functioning labels harm autistic people*. <u>https://autisticadvocacy.org/2021/12/functioning-labels-harm-autistic-people/</u>

- Autistic Self-Advocacy Network. (2022, August 18). *All kids deserve inclusive classrooms.* https://autisticadvocacy.org/2022/08/all-kids-deserve-inclusive-classrooms/
- Bonker, E.M., & Breen, V.G. (2013). *I am in here: The journey of a child with autism who cannot speak but finds her voice.* Revell.

https://archive.org/details/iaminherejourney0000bonk/mode/2up

Causton-Theoharis, J., Theoharis, G., Orsati, F., & Cosier, M. (2011). Does Self-Contained Special Education Deliver on Its Promises? A Critical Inquiry into Research and Practice. *Journal of Special Education Leadership*, 24(2), 61–78. <u>https://www.inclusiveschooling.com/wp-content/uploads/articles/Does_self-contained_sp</u> ecial education deliver etc.pdf

Cook, J., Hull, L., Crane, L., & Mandy, W. (2021). Camouflaging in autism: A systematic review. *Clinical Psychology Review, 89* <u>https://doi.org/10.1016/j.cpr.2021.102080</u>

- Crompton, C. J., Ropar, D., Evans-Williams, C. V. M., Flynn, E. G., & Fletcher-Watson, S. (2020). Autistic peer-to-peer information transfer is highly effective. *Autism*, *24*(7), 1704–1712. <u>https://doi.org/10.1177/1362361320919286</u>
- Dawson, G., Franz, L., & Brandsen, S. (2022). At a crossroads—reconsidering the goals of autism early behavioral intervention from a neurodiversity perspective. *Journal of the*

American Medical Association Pediatrics, 176(9), 839-840.

https://doi.org/10.1001/jamapediatrics.2022.2299

- Endrew F. v. Douglas County School District. (2017). *Oyez*. https://www.oyez.org/cases/2016/15-827
- Fuchs, D., & Fuchs, L. S. (1994). Inclusive Schools Movement and the Radicalization of Special Education Reform. *Exceptional Children*, 60(4), 294-309. <u>https://doi.org/10.1177/001440299406000402</u>
- Haines, S. J., Gross, J.M.S., Blue-Banning, M., Francis, G. L., & Turnbull, A. P. (2015).
 Fostering family–school and community–school partnerships in inclusive schools. *Research and Practice for Persons with Severe Disabilities, 40*(3), 227-239.
 https://doi.org/10.1177/1540796915594141
- Hodges, A., Cordier, R., Joosten, A., & Bourke-Taylor, H. (2022). Closing the gap between theory and practice: Conceptualisation of a school-based intervention to improve the school participation of primary school students on the autism spectrum and their typically developing peers. *Journal of Autism and Developmental Disorders, 52*(7), 3230-3245.
 https://doi.org/10.1007/s10803-021-05362-5

Hunzicker, J. (2023, March 17). The purpose of a K-12 education: Who decides and how do we get there? eSchool News. <u>https://www.eschoolnews.com/educational-leadership/2023/03/17/the-purpose-of-a-k-12-</u> education/

Hurwitz, S., Decker, J. R., & Linder, I. L. (2020). The Endrew Decision's Impact on the Education of Students With Autism: Implications for Practice and Policy. Focus on Autism and Other Developmental Disabilities, 35(3), 131-142.

https://doi.org/10.1177/1088357619888928

- Kauffman, J.M., Hallahan, D.P., Pullen, P.C., & Badar, J. (2018). *Special education: What it is and why we need it* (2nd ed.). Routledge.
- Landrum, T. J., Tankersley, M., & Kauffman, J. M. (2003). What Is Special About Special Education for Students with Emotional or Behavioral Disorders? *The Journal of Special Education*, 37(3), 148-156. <u>https://doi.org/10.1177/00224669030370030401</u>
- Lindsay, S., Proulx, M., Thomson, N., & Scott, H. (2013). Educators' challenges of including children with autism spectrum disorder in mainstream classrooms. *International Journal of Disability, Development and Education, 60*(4), 347-362. https://doi.org/10.1080/1034912X.2013.846470
- Loeper, M. F., Schwab, S., Lehofer, M., & Hellmich, F. (2022). The role of students' experiences in attitude formation towards peers with non-compliant classroom behaviour in inclusive primary schools. *European Journal of Special Needs Education*, *37*(6), 921–935. <u>https://doi.org/10.1080/08856257.2021.1967295</u>
- McKenney, E.L.W. (2017, October). Endrew F. v. Douglas County School District: Implications for teams serving students with Autism Spectrum Disorder. *Communiqué*, *46*(2), 11-14.
- Missiuna, C. A., Pollock, N. A., Levac, D. E., Campbell, W. N., Whalen, S. D. S., Bennett, S. M., Hecimovich, C. A., Robin Gaines, B., Cairney, J., & Russell, D. J. (2012). Partnering for Change: An innovative school-based occupational therapy service delivery model for children with developmental coordination disorder. *Canadian Journal of Occupational Therapy*, 79(1), 41-50. <u>https://doi.org/10.2182/cjot.2012.79.1.6</u>

National Center for Education Statistics. (2022). *Percentage distribution of school-age students* served under Individuals with Disabilities Education Act (IDEA), Part B, by educational environment and type of disability: Selected years, fall 1989 through fall 2020. <u>https://nces.ed.gov/programs/digest/d21/tables/dt21_204.60.asp?current=yes</u>

Prichep, D. (2014, June 2). *Do autistic kids fare better in integrated or specialized schools?* National Public Radio. https://www.npr.org/2014/06/02/316462407/do-autistic-kids-fare-better-in-integrated-or-s

pecialized-schools

Rao Sankar, T. (2021, September 2). *The autistics' question.* NeuroClastic.

https://neuroclastic.com/the-autistics-question/

Sansosti, J.M., & Sansosti, F.J. (2012). Inclusion for students with high-functioning Autism Spectrum Disorders: Definitions and decision making. *Psychology in the Schools*, 49, 917-931. <u>https://doi.org/10.1002/pits.21652</u>

Schuknecht, C. (2018, December 9). School where student with autism died violated state regulations, officials say. National Public Radio.

https://www.npr.org/2018/12/09/675145052/school-where-student-with-autism-died-violat ed-state-regulations-officials-say

Schwab, S. (2017). The impact of contact on students' attitudes towards peers with disabilities. *Research in Developmental Disabilities*, 62, 160–165.

https://doi.org/10.1016/j.ridd.2017.01.015

TIES Center. (n.d.). Overview. https://tiescenter.org/about/overview

Timmons, V., & Wagner, M. (2009). *Inclusive education knowledge exchange initiative: An analysis of the Statistics Canada Participation and Activity Limitation Survey.* Canadian Council on Learning.

http://en.copian.ca/library/research/ccl/inclusive_edu_know/inclusive_edu_know.pdf

Vance, T. (2023, May 24). *My family's autism services are working for us, so we will probably lose them.* NeuroClastic.

https://neuroclastic.com/my-familys-autism-services-are-working-for-us-so-we-will-proba bly-lose-them/

White, S. W., Scahill, L., Klin, A., Koenig, K., & Volkmar, F. R. (2007). Educational placements and service use patterns of individuals with autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 37(8), 1403-1412. https://doi.org/10.1007/s10803-006-0281-0

Wood, C. (2015). Yardsticks (3rd ed.). Center for Responsive Schools, Inc.

- Yi, H., & Queenie, K. Y. S. (2021). "His inner-self must be good": An ethnographic-vignette study of social interactions between children with autism spectrum disorder and typically developing peers. *Journal of Social and Personal Relationships, 38*(1), 232-255. https://doi.org/10.1177/0265407520959456
- Zablotsky, B., Bradshaw, C. P., Anderson, C. M., & Law, P. (2014). Risk factors for bullying among children with autism spectrum disorders. *Autism: The International Journal of Research and Practice*, *18*(4), 419–427. <u>https://doi.org/10.1177/1362361313477920</u>