Psychological Functioning and Adaptation of Children with Autism Spectrum Disorder

Transitioning from Early Intervention to School

by

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A thesis submitted in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

in

SCHOOL AND CLINICAL CHILD PSYCHOLOGY

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Abstract

Using the ecological framework proposed by Rous, Hallam, Harbin, McCormick, and Jung (2007), this paper-based dissertation investigates the transition from early intervention into school for children with Autism Spectrum Disorder (ASD) and the impact it has on their emotional and behavioural functioning. The findings from two studies are described and integrated; a qualitative study exploring the parental experience of going through the transition from early intervention into the school system with a child with ASD in Alberta and Ontario (*N*=11) and a multiple case study exploring aspects of the transition from early intervention to school that underlie changes in children's emotional and behavioural functioning (*N*=5). Findings of the first study revealed six themes, including: 1) Parent anxiety; 2) Preparation; 3) School challenges; 4) Parent involvement; 5) Early intervention support; and 6) Benefits of transition. Findings from the second study yielded four themes, including: 1) Transition to school impacts emotional and behavioural functioning; 2) Starting school with challenges; 3) High parent involvement; and 4) Impact on family. The benefits, challenges, and key transition experiences are also detailed. The integration of findings from both studies highlight individual differences, anxiety and ASD, and the cycle of child and parent emotional challenges. Further, the ecological framework for transitions, as proposed by Rous et al. (2007), is supported. Overall implications and recommendations are discussed.

Keywords:

Autism spectrum disorder, developmental disability, education, school, transition, family, mental health

Preface

This thesis is an original work by Stephanie Price. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board, Project Name "Psychological Functioning and Adaptation of Children with Autism Spectrum Disorder Transitioning from Early Intervention to School", No. Pro00060847, April 12, 2016.

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Chapter 1: Introduction

The transition out of early intervention into the school system is one of the first major transitions in the lives of children with autism spectrum disorder (ASD) and their families. Over the past few decades, there has been a wealth of literature aimed at exploring the transition of children with disabilities into kindergarten, from elementary to secondary school, and secondary school to adulthood. Despite this, there is limited research exploring the transition out of early intervention into the school system for children with ASD and their families, which is of particular interest because there are considerable differences between the two settings in terms of funding, access to specialized services, and level of support.

In an attempt to understand the transition from early intervention into school for children with ASD, what follows is a literature review to explore current conceptions of ASD and intervention, inclusive education of students with special needs, the transition to school and particular recommended practices, and the transition in consideration of a Canadian context based on the provinces of Alberta and Ontario. In addition, an ecological framework proposed by Rous, Hallam, Harbin, McCormick, and Jung, (2007) is described. This framework helps to explain the complex transition process and the many variables at play (e.g., child or family characteristics, teacher and classroom, program factors, relationship between programs), all of which need to be considered when attempting to make improvements to the transition process. One such variable that would certainly impact the success of a transition is the child's emotional and behavioural functioning, which will be explored in greater detail.

Autism Spectrum Disorder (ASD)

According to the most current Diagnostic and Statistical Manual of Mental Disorders (DSM-V; American Psychiatric Association [APA], 2013), ASD is a neurodevelopmental

disorder that is characterized by two core set of symptoms: persistent deficits in social communication and interaction, and restricted or repetitive behaviours, interests, or activities. The deficits in social communication and interaction, such as initiating and reciprocating social interactions, understanding nonverbal communication, and developing and maintaining relationships, have been recognized as the main features of the disorder that are the most impairing (Fein, 2011). The restricted or repetitive behaviours, interests, or activities are considered to be some of the most apparent symptoms of ASD, as they are not easily concealed. These symptoms include stereotyped or repetitive motor movements, a need for routine and sameness, ritualized behaviours, restricted interests or being fixated on something that is both abnormal in topic of focus and intensity, and hyper- or hypo-sensitivity to sensory information (APA, 2013). To receive a diagnosis of ASD, children must demonstrate both core symptoms.

Level of severity is specified for both core symptoms, ranging from Level 1 "Requiring support" to Level 3 "Requiring very substantial support". Other specifiers include accompanying intellectual impairment, language impairment, associated with a known medical or genetic condition or environmental factor, associated with another neurodevelopmental, mental, or behavioral disorder, or with catatonia. It is important to note that there is considerable variability in how symptoms are expressed. For example, there may be differences in terms of intensity or frequency of the symptoms, the presence of secondary disabilities (e.g., difficulties with expressive language), increased likelihood of experiencing another mental disorder, and environmental variables (e.g., being in a cognitively demanding environment). Therefore, while there is a degree of consistency in the core symptoms of ASD, individuals can be unique in their presentation, strengths, and weaknesses.

The core symptoms of ASD are observable in the early developmental period and result in lifelong difficulties in everyday functioning (APA, 2013; Losh et al., 2009). Since the 1960's, the prevalence of Pervasive Developmental Disorders (i.e., previous category for autism spectrum-like disorders) has been on the rise (Levy, Mandell, & Schultz, 2009). The current prevalence of ASD in both children and adults is approximately 1% of the population, affecting approximately 1 in 68 children (APA, 2013; Centers for Disease Control and Prevention [CDC], 2014). ASD has been found in all racial, ethnic, and socioeconomic groups (CDC, 2014) and males have been found to be four times more likely than females to receive the diagnosis (APA, 2013).

Individuals with ASD are vulnerable to secondary disabilities. For example, almost half (46%) have average to above average intelligence abilities (CDC, 2014), which suggests that more than half experience intellectual disabilities. Furthermore, individuals with ASD have a greater likelihood of experiencing seizures (Happé & Frith, 1996), struggling with executive functions or higher-order thinking (e.g., planning, organization, inhibition, and working memory), motor deficits (e.g., gait and clumsiness), and language difficulties (APA, 2013; Fein, 2011). Difficulties with language can vary considerably amongst the population of those with ASD. For instance, difficulties can range from having no speech, difficulties understanding speech, echolalia (e.g., repeating exactly what was heard), to literal use and understanding of language (APA, 2013; Fein, 2011; Losh et al., 2009). Regardless of secondary language deficits, all individuals with ASD will demonstrate lifelong difficulties with social reciprocity and pragmatics of language (APA, 2013).

Psychopathology in autism. Overall, the co-occurrence of psychological disorders in ASD is approximately 10% (CDC, 2014), however depending on the diagnosis, could be as high

as 70% (APA, 2013; Leyfer et al., 2006). The most common symptoms found are related to anxiety, depression, attention-deficit hyperactivity disorder, specific phobias, and obsessive-compulsive and oppositional behaviours (e.g., Gotham, Brunwasser, & Lord, 2015; Kim, Szatmari, Bryson, Streiner, & Wilson, 2000; Lecavalier, Gadow, Devincent, Houts, & Edwards, 2011; Leyfer et al., 2006; Matson & Nebel-Schwalm, 2007; Simonoff et al., 2008). These trends do not necessarily account for subsyndromal levels of a psychological disorder (i.e., meet most, but not all diagnostic criteria; Leyfer et al., 2006), which suggests that the incidence of symptoms of psychopathology in ASD might be higher than initially estimated. The high rate of comorbidity has been hypothesized to be related to the multiple varied brain impairments found in the core symptoms of ASD, often similar to other psychological disorders, suggesting that behavioural diagnostic criteria in the DSM might not adequately capture the true nature of ASD (Waterhouse, London, & Gillberg, 2016).

It is evident that children with ASD experience higher levels of psychopathology than the general population, which may warrant more specific interventions separate from the interventions they would have been receiving for a diagnosis of ASD (e.g., early behaviour interventions). Even if they did access psychologically-based interventions, there are few evidence-based mental health interventions for individuals with ASD (Wong et al., 2014) and individuals with ASD generally have poor access to mental health services because of their perceived complex needs (Salomone et al., 2014), especially children (McConachie, Hoole, & Le Couteur, 2011). When a child with ASD also experiences symptoms of psychopathology, the greater the impact it has on their overall functioning (Mazzone et al., 2013), life satisfaction, ability to regulate emotions, and social difficulties (Gotham et al., 2015), which makes evaluating emotional and behavioural symptoms essential in supporting this population.

Intervention Approaches for ASD

There are various intervention strategies to help support individuals with ASD in gaining skills and reducing problem behaviours. While there are various approaches, those that utilize behavioural strategies have been deemed the most effective interventions (Matson & Smith, 2008; Perry & Condillac, 2003; Perry et al., 2008; The National Autism Center, 2015; Wong et al., 2014). According to two recent reviews of evidence-based interventions for children with ASD, interventions that were deemed effective involved the principles of Applied Behaviour Analysis (ABA) in one-way or another (The National Autism Center, 2015; Wong et al., 2014). ABA is based on the basic principles of behaviour and includes several empirically based methods (Baer, Wolf, & Risley, 1968), including techniques such as reinforcement and prompting, and assessment and analysis techniques such as functional analysis (Wong et al., 2014). More recently, there is a trend towards Naturalistic Developmental Behavioural Interventions (NDBI), an approach that also incorporates behavioural strategies, partially because of the criticisms related to more intensive and structured behavioural interventions (Schreibman et al., 2015). Criticisms include reduced motivation, difficulties with generalization of skills learned, increased challenging behaviours, spontaneity or initiation of behaviours, and dependence on prompts from others, all of which have demonstrated successful results with NDBI (Schreibman et al., 2015).

While evidence-based interventions for ASD involve behavioural strategies, they can be provided in either a comprehensive or focused way (Wong et al., 2014). Comprehensive interventions involve supporting the individual with ASD to learn developmental skills related to the core deficits of ASD (Wong et al., 2014). These interventions are manualized, based on a conceptual framework, intense (e.g., 20-40 hours per week), longer than one year in duration,

and focus on many outcomes variables (e.g., communication, behaviour, and social skills). On the other hand, more focused interventions address one skill or goal at a time and are based on the particular strengths and needs of the child, which makes them ideal for use in educational settings (Wong et al., 2014). Interventions can also be categorized as either increasing or decreasing behaviours (The National Autism Center, 2015). Skill acquisition in communication, cognitive functioning (e.g., problem-solving), interpersonal skills (e.g., social skills), academics and learning readiness (e.g., following instructions), motor skills, activities of daily living (e.g., feeding and eating), placement (e.g., school, home, or community), play, self-regulation, and decreases in general ASD symptoms, problem behaviours, restricted, repetitive, non-functional behaviours, interests or activities, and sensory or emotional regulation are often targeted (The National Autism Center, 2015).

Most research on early intervention programs look at preschool-aged children (i.e., age 4-6), but early intervention can also be provided for children under the age of three. In a review of early intervention programs for children under the age of three conducted by Zwaigenbaum et al. (2015), it was found that early intervention programs tend to be a combination of developmental and behavioural approaches, involve increased parental involvement, and target social communication skills specifically, along with cognitive, behavioural, language, sensory, and motor skills. Furthermore, it has been found that gains made in early intervention programs for children under the age of three likely persist long-term (Estes et al., 2015).

The National Autism Center (2015) has put forth their findings from one of the largest literature reviews of interventions for individuals with ASD. After reviewing over 1000 research articles, they identified 14 evidence-based established interventions, all of which were behavioural in nature, and over 30 emerging to unestablished interventions. The 14 evidence-

based interventions included behavioural interventions (e.g., antecedent and consequence strategies), cognitive behavioural intervention packages (e.g., describing emotions, cognitive restructuring), comprehensive behavioural treatments for young children (i.e., intensive early behavioural interventions with a focus on a range of essential skills, based on ABA, data-based decision-making, individualized instruction in various settings, and small group instruction), language training, modeling, natural teaching strategies (i.e., increase adaptive skills at home, school, or in the community), parent training, peer training packages, Pivotal Response Training (PRT; targets "pivotal" behaviours in relation to motivation to engage in communication, self-initiation, self-management, and responsiveness to cues), schedules (i.e., plan for activities), scripting (i.e., verbal or written guidance on how to use language to initiate or respond), self-management, social skills packages (e.g., eye contact, gestures), and story-based interventions.

While these comprehensive reviews explored intervention approaches for children and adolescents with ASD in general, to be considered early intervention, a program should apply these evidence-based strategies with children who are of preschool age or younger. The goal of early intervention is to increase the child's functioning, independence, and quality of life in the early developmental period (Lai, Lombardo, & Baron-Cohen, 2014). There are many evidence-based options that parents can choose for their child with ASD. However, it is important that parents consider that irrespective of what interventions are chosen, not all interventions will work for every child (The National Autism Center, 2015) and thus, interventions should be individualized to the particular child's strength's and needs, incorporate a multidisciplinary team, and should be multidimensional in nature (Lai et al., 2014). Trends in improvement of skills appear to be related to having individualized, structured, and developmentally appropriate interventions, accessing intervention early in development, receiving more intensive amounts of

intervention, and having access to highly trained staff (Perry, 2002; Perry & Condillac, 2003; Perry et al., 2008; Schreibman, 2000).

The generalization of skills learned in intervention is a major concern in all interventions for children with ASD (Lai et al., 2014) because children with ASD generally have difficulty generalizing the skills they have learned (Wilczynski, Fisher, Christian, & Logue, 2009). Subsequently, early intervention programs place an emphasis on generalizing the skills learned to different settings, people, and situations. Realistically, there is little value in the intervention if the child is not able to take the skills learned and use them effectively and independently in the real world. One setting where the generalization of skills learned in early intervention is essential is when a child is transitioned into the school system.

Inclusion of Children with ASD in School Systems

Over 30 years ago, students with ASD in Canada were placed in segregated classrooms with students who had various other disabilities, sometimes outside their own community (Bryson, Rogers, & Fombonne, 2003). However, in the intervening years, the philosophy of inclusion has gained momentum (Porter, 2008). The philosophy of inclusion positions that regardless of strengths and weaknesses, all students have the right to access the same opportunities and be educated with their same age peers in their community (Elkins, van Kraayenoord, & Jobling, 2003; Mesibov & Shea, 1996; Porter, 2008). Inclusion is therefore different from integration, where students have the chance of being in the same classroom as their peers, but they are not provided with all of the same opportunities (Mesibov & Shea, 1996; Porter, 2008). The main push for inclusion has been attributed to parental advocacy (Bryson et al., 2010; de Boer, Jan Pijl, & Minnaert, 2010; Kasari, Freeman, Bauminger, & Alkin, 1999) and

thus, the parents of children with special needs have been a guiding and valued voice in how to best support children with special needs in the education system.

Currently, more and more children with special needs are educated in inclusive classrooms (Kasari & Smith, 2013), making inclusive education a reality for children with ASD after they leave early intervention. Therefore, a major concern for the educational system is how to best educate and meet the needs of students with ASD. While education systems across Canada have generally embraced inclusive practices (Porter, 2008), some students with ASD still experience difficulties at school; some of which are related to the nature of ASD itself or the difficulties that result (Connor, 1999; Hundert, 2009). For example, children with ASD might struggle to cope with stress and adapting to change in the classroom (McConachie et al., 2011), become over-stimulated by classroom characteristics (Connor, 1999), and could exhibit increased challenging behaviours (The National Autism Center, 2011; Volker, 2012). Further, communication challenges can impact their ability to learn and interact with others (The National Autism Center, 2011; McConachie et al., 2011).

Transition to School

Children with ASD will experience multiple transitions throughout their lives. A transition is described as a "process of movement or shift from one environment to another and are an important part of human life, from infancy through adulthood" (Rous, Myers, & Stricklin, 2007, p. 1). These transitions are therefore any event that facilitates changes in the relationships, routines, expectations, professionals, or roles that the child and family have become habituated to (Alberta Education, 2006; Rous et al., 2007). We all experience life transitions, but for children with special needs (Alberta Education, 2006) and ASD (McConachie et al., 2011), it can be a

potentially stressful event that impacts adjustment during the transition to and once placed in the school environment (Rous et al., 2007; Rous & Hallam, 2012).

In the literature, two types of transitions have been described when considering children with special needs: vertical and horizontal transitions (Stoner, Angell, House, & Jones Bock, 2007). Vertical transitions refer to life transitions experienced by all (e.g., transitioning from high school to adult services), whereas horizontal transitions have been described as transitioning from one situation to another (e.g., transitioning from recess to class; Stoner et al., 2007). Therefore, the transition to school in particular would be considered a vertical transition, which has not received as much research interest as horizontal transitions (Stoner et al., 2007). Despite this, vertical transitions are complex and thus, both researchers and decision-makers have attempted to better understand the process in order to make improvements to transition policies and procedures, and support children with special needs and their families (Rous & Hallam, 2012). As such, evidence-based transition practices are currently being sought out (Rous & Hallam, 2012).

Transition for Children with Special Needs. A mapping review approach was used to categorize the prior literature on the transition to school for children with special needs. The purpose of a mapping review is to "map out" and categorize the present literature in an attempt to identify gaps (Grant & Booth, 2009). Mapping reviews are beneficial because they can provide a basis for pragmatic decision-making in research (Grant & Booth, 2009). The PsychInfo database was used with the identifiers of "transition", "school", and "disabilit*" for the childhood age group of birth to 12 years. Initially, 59 articles were found but only 10 articles met review criteria. The criteria used for the present review included articles published in peer-reviewed journals, published within the past 15 years (since 2000), examined the transition into

school for children with any disability (excluding ASD specifically), and described the

methodology and findings. Also, three additional articles that were cited in these 10 articles were

included in the review. In total, 13 articles were included in the present review, one of which

exceeded the 15-year publication range because it appeared to be a seminal article. Each article

was summarized, examining the purpose/research question, participants, methodology, analyses,

and conclusions made, and can be found in Table 1. A summary of the trends in the literature and

gaps found are described in the following section.

Table 1

Review of Articles Related to the Transition of Children with Special Needs

	Purpose/Research Questions	Participants	Methodology	Analyses	Conclusions
Daley, Munk, & Carlson (2011)	1) What are the special education supports identified under the Individuals with Disabilities Education Act (IDEA) currently received as children with disabilities enter kindergarten? 2) What are the child and family, school, and district factors predict the supports?	1989 teachers of children with disabilities in the U.S.	Qualitative: • Telephone interview Quantitative: • Kindergarten teacher questionnaire • Review of data files and questionnaires	• Path modeling (Muthen & Muthen, 2007)	• Type of support comparable or higher than other reports • Low-intensity supports (less individualized) most used • Being from a larger district, higher poverty less likely to receive support
Hamblin-Wilson & Thurman (1990)	1) What are the perceptions of parents of children with special needs as their child leave early intervention enters school?	91 parents of children with special needs in the U.S.	Quantitative: • Questionnaire created by authors	• Correlations • T-tests	• Most parents felt involved in and received more support from early intervention than school • More education and those who were prepared were more satisfied

Janus, Kopechanski, Cameron, & Hughes (2008)	1) What are parental perceptions of quality of care and impact of disability prior to and after transition to school? 2) Do child adaptive skills moderate supports?	Parents of 40 children aged 4-6 with special needs (20 who in preschool and 20 already in school) in Ontario	Quantitative: • Impact on Family questionnaire (Stein & Jessop, 2003) • The Measure of Processes of Care (MPOC-20; King et al., 2003) • Vineland Adaptive Behavior Scales (VABS; Sparrow et al., 1984) Qualitative: • Parent reported severity of child's condition • Interviews	• Descriptives • ANOVA • "Described and quantified 5 aspects of the interviews"	• Post-transition parents reported less impact of disability on family, lower perception of quality of care, and long wait for support • Satisfied with collaboration • Adaptive behaviour lower post-transition • Few families had no contact with school prior to transition • Most pre-transition parents felt that information was passed to school
Kemp (2003)	1) What are the services and experiences of families of children with intellectual disability who leave early intervention and enter mainstream kindergarten?	Parents, teachers, and principals of 33 children with intellectual disabilities in Australia	Quantitative: • Quantified structured interviews	• Descriptives • Correlations	• Parents reported initial and long term integration in first year • All children received transition program with child preparation, parent support, support for new placement • Teachers did not feel supported • Parents felt supported and reported some collaboration • 2/3 of parents satisfied with involvement • Parents concerned about willingness of schools to receive help, orientation, teaching of skills, and collaboration • Attitude of child and acceptance important factors

Malone & Gallagher (2008)	1) What is the child-age-at-referral and level of functioning of children referred to special education? 2) Does source of referral, child's level of functioning, or education level of mothers predict age of referral and placement?	220 children aged 3 years who received preschool special education in southern U.S.	Quantitative: • Review of student records	• Frequency data • ANOVA • Chi-square	• Source of referral and child's level of functioning predicted age of referral and placement
McIntyre, Blancher, & Baker (2006)	1) Does IQ, adaptive behaviour, and gender predict adaptation to school? 2) Does child self-regulation predict adaptation to school? 3) Do child parent- and teacher-reported social skills predict adaptation to school?	Mothers and teachers of 24 students with and 43 without an intellectual disability aged 5-6 years in the U.S.	Quantitative: • IQ testing • Vineland Adaptive Behavior Scales (Sparrow et al., 1984) • Social Skills Rating System, Social Skills Scale (Gresham & Elliott, 1990) • Child Behavior Checklist (Achenbach, 1991) • The Student-Teacher Relationship Scale (Pianta, 2001) Qualitative: • Observation of mother-child interactions	• Correlations • Chi-square • Hierarchial linear regression	• Intellectual delay had more teacher reported behaviours and poorer relationships with teachers • Poorer teacher and parent reported social skills and self-regulation • Self-regulation at 36 months and social skills related to successful adaptation to school
McIntyre, Eckert, Fiese, DiGennaro Reed, & Wildenger (2010)	1) What are family concerns during preschool to kindergarten transition of families with general education and special education students beginning kindergarten?	Parents of 132 students (29 in special education and 103 in general education)	Quantitative: • The Family Experiences and Involvement in Transition (FEIT) survey	• Chi-square • T-tests	• Parents of special needs reported concerns about child's behaviour, communication, academic readiness, and overall readiness • Parents of children without special needs reported similar concerns related to attending a new school, peer relations, separation, and relations with new teacher

Murphy, McCormick, & Rous (2013)	1) Do transition practices into preschool for families in rural and urban communities and schools differ?	2434 teachers in the U.S.	Quantitative: • Adapted version of Nation Center Early Development and Learning Kindergarten Transition Survey	• T-tests • Chi-square	• Rural schools used more transition practices, fewer barriers to transition • Parental interest and involvement identified as ideal in rural, but class list and funding more ideal in urban • Rural and urban had difficulties receiving information on how to enhance transitions
Podvey, Hinojosa, & Koenig (2013)	1) What are the family transition experiences as child transitions from early intervention into preschool special education?	6 parents whose child was receiving therapy in metropolitan area of major city in U.S. and qualified for special education	Qualitative: • 7 semi-structured interviews per participant over 3 months (one before start of preschool and every 2-weeks post)	• Comparative analysis of interviews (Strauss & Corbin, 1990)	• Caregivers felt removed from previous role on intervention team
Rous, Hallam, McCormick, & Cox (2010)	1) What are the transition practices used by preschool teachers? 2) What are the relations among classroom /teacher / school characteristics, and transition practices?	2434 public preschool teachers from U.S.	Quantitative: • Adapted Public Preschool Transition Practices Survey	• Descriptives	• 70% using more than 12 of 25 recommended practices • Most common practices include talking to parents before and during, sending letters to parents • Barriers related to family characteristics • Training on transition practices, years of experience, having students with disabilities in classroom, multiple ages of students, and being in non-metropolitan program related to number of practices used

Troup & Malone (2002)	1) What is the context and ecology of transitions from preschool-to-inclusive kindergarten classrooms?	11 inclusive kindergarten programs in Ohio with students who had developmental concerns	Quantitative: • Kindergarten Visit Checklist Qualitative: • Field notes • Observations	• Descriptives	• Inclusive programs had contemporary, elementary school program orientations
Villeneuve et al., (2013)	1) What are the perspectives and experiences of parents of children with developmental delay and their experiences transitioning from early intervention and early childhood education to school?	Parents, educators, and healthcare professionals of three preschoolers with developmental delay in Canada	Qualitative: • Interviews • Observations	• Inductive analysis (Patton, 2002) • Cross-case analysis (Stake, 2006)	• Planning up to 8-months prior • Families involved but limited communication outside of meetings • Transition planning activities supported open communication between educators and parents • Success with formal planning meetings • Evidence of cross-sector and interprofessional collaboration • Parents felt uninformed about their involvement at school
Welchons & McIntyre (2015)	1) What are the parent and teacher concerns and involvement in transition preparation for typically developing children and those with developmental disability? 2) Is there a relationship among preschool child problem behaviour and adaptive behaviour, and parent and teacher involvement in kindergarten transition practices?	Parents and teachers of 52 typically developing students and 52 students with a developmental delay (40 preschool and 49 kindergarten) in U.S.	Quantitative: • The Family Experiences and Involvement in Transition questionnaire (FEIT; McIntyre et al., 2007) • The Teacher Perceptions on Transitions (Quintero & McIntyre, 2011) • Vineland Adaptive Behavior Scales (VABS; Sparrow, Cicchetti, & Balla, 2005) • Social Skills Improvement System (SSIS;	• Correlations • Chi-square • T-tests	• Family had high involvement • Kindergarten more likely to use generic group-oriented practices • Families reported high level of generic and individualized contact with preschool • More communication with preschool than kindergarten • Preschool and kindergarten collaboration low • Parent and preschool teacher involvement and concerns higher for children with delay • Parents and preschool more

			Gresham & Elliott, 2008) Qualitative: • Follow-up interview upon placement		concerned about children with delays

Concluding from the literature reviewed, it is apparent that children with special needs are generally receiving some sort of support in their transition to school. The majority of transition supports used were related to more universal or group type interventions (e.g., orientation session for all parents), as opposed to individualized supports (Daley et al., 2011; Welchons & McIntyre, 2015), which is in contrast to what parents have reported in other studies as being ideal transition supports (McIntyre et al., 2010). Overall, parents have reported feeling involved in the transition process (Villeneuve et al., 2013), but not as involved in their child's schooling in kindergarten as they were in preschool (Welchons & McIntyre, 2015) or early intervention (Hamblin-Wilson & Thurman, 1990; Podvey et al., 2013). Further, parents have reported that they are generally satisfied with the transition process (Janus, Kopechanski, Cameron, & Hughes, 2008; Kemp, 2003), but they have made recommendations to improve the process. For instance, they have stressed the importance of open and consistent communication and collaboration (Kemp, 2003; McIntyre, Eckert, Fiese, DiGennaro Reed, & Wildenger, 2010; Villeneuve et al., 2013). In terms of the impact of the child's level of functioning, the review revealed that well-developed adaptive skills and being cognitively high functioning were related to positive outcomes and adaptation (McIntyre, Blacher, & Baker, 2006; Welchons & McIntyre, 2015). Also, being an immigrant, from a rural community, living in poverty, and other family characteristics can negatively impact access to appropriate supports during the transition process

(Daley et al., 2011; Murphy, McCormick, & Rous, 2013; Rous, Hallam, McCormick, & Cox, 2010).

The majority of the articles reviewed examined the transition to kindergarten (Daley et al., 2011; Janus et al., 2008; Kemp, 2003; McIntyre et al., 2006; McIntyre et al., 2010; Troup & Malone, 2002; Welchons & McIntyre, 2015), whereas fewer examined the transition into preschool (Malone & Gallagher, 2008; Murphy et al., 2013; Rous et al., 2010) or from early intervention into school specifically (Hamblin-Wilson & Thurman, 1990; Podvey et al., 2013; Villeneuve et al., 2013). It is possible that many of the participants in these studies may have accessed some sort of support prior to their placement in school, but it was not specifically examined. Only 2 studies were completed in Canada (Janus et al., 2008; Villeneuve et al., 2013).

An important finding from the present review is that psychological functioning within the groups of children transitioning were not specifically examined in any of the articles, but cognitive and adaptive functioning as they relate to the transition were (e.g., Janus et al., 2008). Even then, as a group, the studies only addressed behaviour and adaptive skills to compare and look for patterns in parent or teacher perceptions, so thus far, no known studies have explicitly looked at how a child's emotional and behavioural functioning change during a transition. As such, future research should attempt to examine how a child's functioning changes during the transition process because we really know little about how these children handle the transition.

Transition for Children with ASD. To determine the methods used in exploring the transitions of children with ASD specifically, another mapping review of articles identified by the PsychInfo database were included with the identifiers of "transition", "school", and "autism" for the childhood age group of birth to 12 years. Initially, 23 articles were found, but only 4 articles met review criteria. The criteria used for the present review included articles published in

peer-reviewed journals, published within the past 15 years (since 2000), examined the transition

into school for children with ASD only, and described the methodology and findings. Also,

additional articles that were mentioned in these four initial articles were included in the review.

In total, 10 articles were included in the review. A summary of the studies are found in Table 2.

Table 2

Review of Articles Related to the Transition of Children with ASD

	Purpose/Research Questions	Participants	Methodology	Analyses	Conclusions
Beamish, Bryer, & Klieve (2014)	1) From the perspective of teachers as children transition from intervention programs to kindergarten in Australia, what are the important transition practices?	91 teachers in Australia	Quantitative: • Online survey Qualitative: • Final comments on survey	• Criterion level of importance (Odom et al., 1995; Williams et al., 1990) • PASW Text Analytics for Surveys (TAS 3) for thematic analysis • Descriptives	• All transition practices viewed as highly important (36 practices relating to initial planning, preparing child and family, preparing the classroom, introducing the child to the classroom, and follow-up support and evaluation)
Denkyirah & Agbeke (2010)	1) What are the strategies teachers of preschoolers with ASD in Ghana and U.S. consider to be effective in the transition from preschool to school?	65 preschool teachers from Ghana and 210 from U.S.	Quantitative: • Elements for Transition to Kindergarten (ETK) survey	• Descriptives	• Agreed that transition elements (timing, sharing info with family, communication with family, helping family find resources, preparing child and school, relationship between sending and receiving schools, and home visits) were important to school transitions, but not assistive technology and parent training
Dillon & Underwood (2012)	1) What are the issues and concerns of parents when transitioning their children from mainstream primary to secondary? 2) What are the key factors to successful transition experiences for children?	9 pre-transition and 6 post-transition parents of students with ASD	Mixed Methods: • Focus groups • Interviews (including frequency of themes)	• Grounded theory analysis (Glaser & Strauss, 1967) • Chi-square of frequency counts • Correlations	• Transition problematic in the first year, but some integration in second year • Key criteria for success was friendships and peer acceptance • Success facilitated by open communication and knowledge within the school

Fontil & Petrakos (2015)	1) What support systems are in place for families during transition from preschool to school? 2) How do families' experiences with preschools compare to experiences with elementary? 3) What challenges do families experience? 4) How do Canadian and immigrant families' experiences compare?	5 and 5 immigrant parents of a child with ASD in Quebec	Quantitative: • The Measure of Processes of Care (MPOC-20; King, King, & Rosenbaum, 2004) Qualitative: • Semi-structured parent interviews	• Grounded theory and constant comparative method (Glaser & Strauss, 1967)	• Parents viewed quality of care in preschool as more supportive • Family, educational, community support, collaboration, and open communication helpful • Essential that school staff demonstrate genuine care about child's needs • Barriers included admin issues, lack of knowledge and experience, different beliefs, and tenuous home-school relationships • Financial concerns for immigrant families and communication barriers
Forest, Horner, Lewis-Palmer, & Todd (2004)	1) What are the critical elements in the transition process from literature? 2) Is the Elements for Transition to Kindergarten (ETK) tool effective in identifying important transition elements?	Parents, preschool teachers, and kindergarten teachers of 3 children with ASD	Quantitative: • Elements for Transition to Kindergarten (ETK)	• Descriptives	• Transition elements from literature (Timing, sharing info with family, communication with family, helping family find resources, preparing child, preparing school, relationship between sending and receiving schools, assistive technology, home visits, and parent training) viewed as important by all • Variability in implementation • Transition process should be greater than 1 year, roles and responsibilities should be outlined, and setting goals important
Hannah & Topping (2012)	1) How do self-reported anxiety levels compare to standardized sample prior to and post transition to secondary school?	8 students with Asperger's in Scotland	Quantitative: • Adapted version of the Spence Children's Anxiety Scale (SCAS; Spence, 1997)	• Wilcoxon Signed Rank (WSR) • Comparison to standardization sample (1 SD)	• Individual differences in anxiety levels as students transition (some scores increased, while others did not) • 5/8 students had substantial scores on one subscale

Levy & Perry (2008)	1) What are the similarities and difference in beliefs regarding early intervention and transition into school among school staff? 2) How do ideal versus actual transition experiences differ?	26 IBI staff and 37 school staff in Ontario	Quantitative: • Transition Beliefs Inventory (TBI) • Transition Practices Questionnaire (TPQ) Qualitative: • Open-ended questions on TPQ	• Chi-square	• Transition beliefs relatively similar • Both agreed that planning should and does occur, but IBI reported that it should and does occur earlier • Optimal planning within 4-6 months • IBI felt strongly about teaching skills • Both agreed that parents should be involved, but few school staff reported that they were • IBI felt strongly about collaboration and cooperation, both valued communication • School viewed philosophical beliefs as barrier and according to IBI, school not as inviting
Quintero & McIntyre (2011)	1) What are the transition practices in preschool to school for children in ASD and other developmental delays pre- and post-transition?	Parents and teachers of 19 children with ASD and 76 with other developmental disabilities in U.S.	Quantitative: • Teachers' Perceptions on Transition (TPOT) questionnaire • The Family Experiences and Involvement in Transition (FEIT; McIntyre et al., 2007) Qualitative: • Open-ended questions	• Descriptives • Chi-square • T-tests	• Teachers had more concerns about ASD • No difference in total involvement between the groups • Teacher and parent involvement high in transition preparation, fewer individualized strategies used
Stoner, Angell, House, & Bock (2007)	1) How do parents describe experiences related to transition to school? 2) What are parental concerns about transition? 3) What do parents identify as facilitators and barriers to transitions?	4 groups of parents of children with ASD in schools aged 6-8 in U.S.	Qualitative: • Interviews • Review of documentation and observations	• Comparative analysis of cases (Miles & Huberman, 1994) • Multiple coding approach (Barbour, 2001)	• 6 themes: child-centered, open communication, preparation with understanding of child, barriers, focus on horizontal transitions, and effective strategies • Recommendations to understand child's transition issues, what works for the child, planning, and open and honest communication • Parents want to be involved

Tobin, Staunton, Mandy, Skuse, Hellriegel, et al. (2012)	1) What are parents' hopes and concerns regarding transition from primary to secondary mainstream settings? 2) What are the problems encountered? 3) How have parents coped?	7 parents (7 pre-transition and 4 post)	Qualitative: • Focus groups • Follow-up interviews	• Thematic analysis (Taylor & Bogdan, 1984)	• Four main themes: parent perception of the function of education for their child, process of preparation, satisfaction with communication, parental coping • All parents reported child needed specific support and inclusion may limit this access • All parents felt that the process did not begin early enough • Parents wanted transition to be individualized • Parents reported anxiety from their child being unhappy or that the transition would not go smoothly

Similar to the transition literature for children with special needs, for children with ASD, there were several recommended transition practices that were valued and utilized for successful transitions. For example, open communication, collaboration, and preparing the child prior to the transition were deemed important (Beamish, Bryer, & Klieve, 2014; Denkyirah & Agbeke, 2010; Dillon & Underwood, 2012; Fontil & Petrakos, 2015; Forest, Horner, Lewis-Palmer, & Todd, 2004; Levy & Perry, 2008; Stoner et al., 2007; Tobin et al., 2012). A unique characteristic that emerged in the ASD literature is that transition planning must occur prior to the placement of the child (greater than 6 months prior; Forest et al., 2004; Levy & Perry, 2008; Tobin et al., 2012), which did not consistently emerge as a necessary requirement in the special education transition literature. It appeared that this allows for parents and professionals involved in the child's transition time to meet and collaborate on how to best support the child. Certain barriers also emerged; lack of knowledge, having different philosophical beliefs, and limited parent

involvement were identified as negatively impacting the transition (Fontil & Petrakos, 2015; Levy & Perry, 2008). While the majority of what we know is based on parent and professional's perspectives, very little is known about how the children themselves handle transitions. However, one study examined how youth with ASD's behaviour and symptoms of anxiety changed pre- to post-transition to high school (Hannah & Topping, 2012). The authors had found that even though the youth had greater symptoms of anxiety prior to the transition, there was no consistent trend in how these symptoms changed. The sample size was quite small and only looked at individual change, not group change, which may partially explain the individual differences found for changes in anxiety during the transition to high school.

Similar to the trends found in the literature examining the transition to school for children with special needs, the majority of studies examined the transition into kindergarten (Denkyirah & Agbeke, 2010; Fontil & Petrakos, 2015; Forest et al., 2004; Quintero & McIntyre, 2011; Stoner et al., 2007) and few studies included Canadian samples (Fontil & Petrakos, 2015; Levy & Perry, 2008). However, unlike the literature on children with special needs, there were also a handful of articles examining the transition from primary to secondary school (Dillon & Underwood, 2012; Hannah & Topping, 2012; Tobin et al., 2012), which suggests that this type of transition may be especially important for children with ASD, likely because of the increased social demands of high school. Also, while the majority of children with ASD accessed some sort of intervention service prior to the entry to school, it is interesting that few articles (Beamish et al., 2014; Levy & Perry, 2008) had examined this type of transition. One of these articles in particular looked at the transition from the perspective of early intervention and school staff (Levy & Perry, 2008), and the other used a teacher report questionnaires (Beamish et al., 2014).

There were no published reports of the parental perspective of the transition from early intervention into school for children with ASD specifically.

Overall, based on the findings from the present mapping review of the literature, we are still not fully aware of how children with ASD handle the transition from early intervention to school and how they adapt to their new placements. While one study (Hannah & Topping, 2012) examined how symptoms of anxiety changed for youth with ASD as they transitioned from primary to secondary school, none of the studies reviewed examined symptoms of psychological functioning in children with ASD as they transition from early intervention into school. Even though the literature is not clear on how children with ASD handle the transition specifically, some researchers have outlined how the transition from early intervention into school typically occurs for children with a disability in general. The following section will review one such framework that can be used to better understand the variables that can impact the transition.

Ecological Framework for the Transition to School. The transition from early intervention into the school system is complex, as it involves many different stakeholders (e.g., the parents, early intervention staff, school staff, student, and community) and can result in negative consequences for the student and their family if not successful. Rous et al. (2007) have outlined a framework for researchers and professionals to understand how stakeholders and systems interact during the transition process, the unique challenges between the two settings and how they can impact child adjustment, and how to plan for transitions with young children with disabilities. Rimm-Kaufman & Pianta (2000) has also outlined an ecological framework relating to transitions, but it was specific to the transition to kindergarten for all students and not to the transition from early intervention into school. While the ecological framework by Rous et al. (2007) is not specific to children with ASD, it is based on the transition from early intervention

into school for any disability, so the stakeholders and systems involved would be similar for children with ASD because it is an interagency process. In any case, the ultimate goal of transitioning between programs in general is for the child to have a successful transition and be well adjusted in their new setting. To understand how to best meet this goal, the ecological framework proposed by Rous et al. (2007) describes the variables impacting transitions on two levels: the ecological context and its interaction with child and family factors, and specific program and community factors that may impact child and family preparedness and outcomes.

The first level of the ecological framework for the transition to school proposed by Rous et al. (2007) is based on Bronfenbrenner's (1986) ecological model, which proposes that there are specific elements in the environment and contextual factors that may impact the transition experience. In relation to transitions, environmental and contextual factors are related to the individual programs (sending and receiving), service systems, and state/provincial systems, and how they interact with child and family factors. Initially, child and family factors must be considered in transition planning. These would include their strengths and needs, genetic and environmental factors (e.g., temperament, type of disability), access to resources, ethnicity and culture, family structure, perspectives on transition and education, and prior experiences. In consideration of these child and family factors, it is important to consider how they are influenced by community factors. For instance, child and family factors could be impacted by the provider (e.g., different philosophies such as occupational therapy or psychology), programs (e.g., those serving young children), service systems (e.g., early childhood service delivery systems that may include many agencies or organizations), and state/provincial factors (e.g., different departments and policies; level of commitment to young children and families; collaboration through different departments). Ideally, because of these environmental and

contextual factors, the transition should be individualized for every child and family, and this should be considered a priority when developing a transition plan (Rous et al., 2007). A visual illustration of the ecological contextual factors can be found in Figure 1.
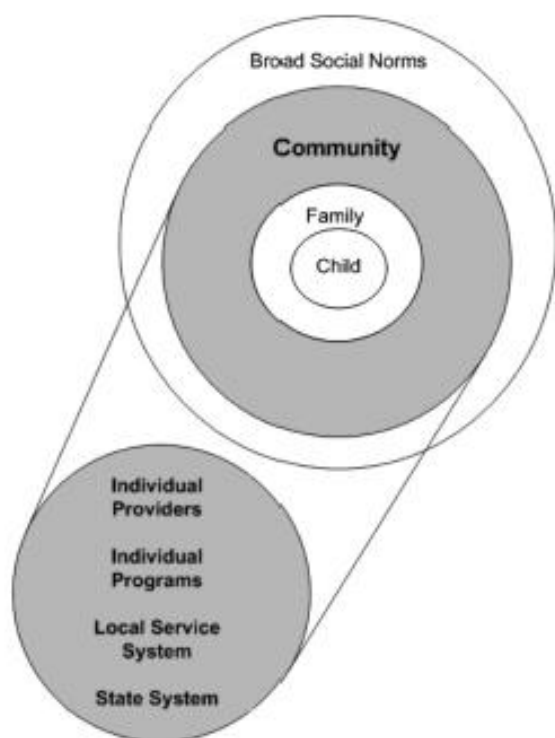
Figure 1. Ecological contextual factors related to transitions (Rous et al., 2007).

The second level of the contextual framework is based on specific program and community factors that play a large part in the success of the transition and directly impact child and family's preparation and adjustment. This complex interaction between critical interagency variables, transition practices and activities, and immediate child and parent outcomes are essential to understanding the transition (Rous et al., 2007). In relation to interagency variables, there are various essential practices that support transitions. They should strive for relationships and communication between the child, family, service providers, agencies, which can be supported by interagency infrastructure on building relationships and facilitating communication

(e.g., policies and procedures and clearly identified roles and responsibilities). According to Rous et al. (2007), there should also be alignment and continuity between programs. For example, there are differences in the program structure, curriculum, opportunities (e.g., peer interactions), and degree of involvement of family. These differences should be identified early in the process and training may be identified as being necessary for staff at the receiving program. In relation to transition practices and activities, these should be established for the child, family, staff, program, and community. Strategies to help the child should be geared towards increasing their success in the new environment (e.g., teach them about the new setting), which could be facilitated through frequent collaboration and communication between families and programs, and program visitation (e.g., child and family visiting the receiving program). These strategies should be applied flexibility, considering the characteristics of the child and family (Rous et al., 2007).

According to Rous et al. (2007), for child and family preparedness, there are particular skills that may be beneficial for the child to being successful, skills that could be taught ahead of time. For example, age-appropriate social skills, ability to adapt to changes in instruction and environment, increased independence, and ability to follow directions have all been identified as supporting a student's ability to adapt at school. To prepare the family, it is again important for programs to collaborate with them throughout the transition process. This would mean including them in the planning stages, gaining their perspective, and continuously checking in with them to evaluate progress. If the child and family are prepared for the transition, child and family adjustment will be enhanced. Their ability to adjust to the new environment has a direct impact on the success of the transition, which is linked to how prepared they are. For example, communication, engagement, and behavioural skills are important for child adjustment and for

parents, being able to advocate for their child's needs and accessing supports from other parents or professionals can help. A visual illustration of the second level of the framework can be found in Figure 2.
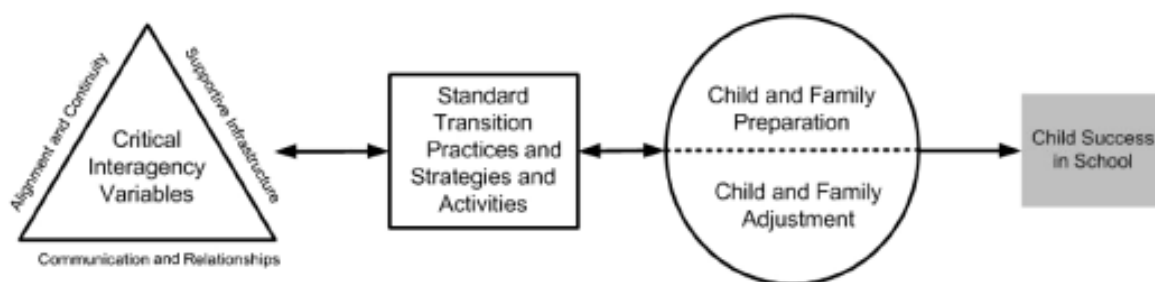
Figure 2 Specific program and community factors that impact child and family's preparation and adjustment (Rous et al., 2007).

When evaluating transition outcomes, there are three specific outcomes: engagement, adaptation, and continued growth and development. Early markers of success may include the child's positive attitude about school, growth in academic skills, the family valuing school, and increased active involvement in their child's new program (Rous et al., 2007). According to the framework, there is a critical window of time for evaluating transition outcomes. Ideally, there should be changes in the child in their ability to engage, adapt, and develop positively between 4 to 12 weeks post-transition, depending on the level and intensity of the program, and child, family, and program characteristics. After this window of time, the child should be able to engage, adapt, and continue to learn and develop. While the framework does not elaborate on the specific outcomes that should be evaluated, it does stress the link between preparation and adjustment and how that can be impacted by particular ecological contextual variables. Despite this, Rous and Hallam (2012) have recently suggested that research should be looking at more than just academic success as a transition outcome and that it is important to look at the parental

perspective of a successful inclusion. By identifying the variables impacting child outcomes, programs can be better informed in choosing ideal transition practices to best support the child and family, which can be facilitated by research that looks at how policies and actions actually affect the child and their family (Rous et al., 2007).

According to the theoretical framework on transitions outlined by Rous et al. (2007), the transition to school for children with ASD is complex and involves multiple stakeholders and contexts. This model suggests that it is essential for research to utilize methods of inquiry that moves beyond simply understanding the elements that make a transition successful from the perspective of the stakeholders (i.e., parents and professionals) to providing a rich explanation as to why and how these elements influence the transition process. For example, while we know that collaboration between settings is valuable according to parents and professionals, the literature has not yet demonstrated exactly how it impacts the child specifically. Using more than one method of inquiry and various types of data should create a means of enhancing explorations of complex phenomena, such as the transition to school. As such, the current studies may aid in filling the gap in what we know about children with ASD as they transition to school.

Recommendations for Transition. The challenges of including children with a developmental disorder in school is "assuring that the individual developmental, educational, health and social interventions required by the child and family are incorporated into the inclusive experience" (Villeneuve et al., 2013, p.7). While the transition from early intervention to school can be potentially challenging and stressful, particularly for children with ASD, there are various transition practices that have been recommended in the literature. The emphasis throughout most literature is to have collaboration and coordination between the two settings

(Rous & Hallam, 2012), which may help to reduce stress for children and their families by increasing continuity of services and supports (Fox, Dunlap, & Cushing, 2002).

For both sending and receiving settings to collaborate and coordinate services, Rous et al. (2007) suggests that there are two main strategies that support successful transitions for children with special needs: critical interagency variables, and transition practices and activities. Critical interagency variables include ways that the multiple agencies and families interact, while recommended transition practices and activities include ways of preparing everyone for the transition. These strategies are outlined in Table 3. In comparison to the research literature that examined the parent, school staff, and early intervention staff perspectives of the transition process, the most common recommendations include early planning, having open communication between the two settings and the family, creating and sharing a detailed written transition plan, and inclusion of families throughout the whole process.

Table 3

Strategies that Support Successful Transitions (Rous et al., 2007)

Critical Interagency Variables		Transition Practices and Activities	
Supportive infrastructure	• Transition plan that outlines roles and responsibilities • Interagency agreements • How administration will support	Preparing the family and child for the transition	• Participation in meetings • Workshops for parents and program visits • Sharing information
Relationships and communication	• Attending and participating in regularly scheduled meetings • Understanding policies, procedures, and values of the other agency	Instructional activities	• Home visits • Orientation for child and families • Individualized materials
Continuity and alignment of programs	• Developmentally appropriate practices • Knowing and understanding expectations • Continuity of personnel • Connections between program guidelines, expectations, and curriculum	Child-specific activities	• School survival skills
		Community resources	• Disability networks and agencies • Recreation programs • Support groups

Early planning. The transition to school should be considered a process, not a one-time

acute event (Rous et al., 2007) and thus, it requires time for both settings and the family to plan

the process prior to when the transition occurs. The planning process should commence early in

the process (Forest et al., 2004), approximately 6 months prior to placement (Denkyriah &

Agbeke, 2010; Levy & Perry, 2008). Early preparation is essential to allowing enough time to

identify a team of relevant professionals from both settings who will participate in the child's

transition who can then, collaboratively with the family, gather information, set goals, and

identify possible challenges the child might face (Denkyriah & Agbeke, 2010). This

collaboration should occur through formal regularly planned meetings (Villeneuve et al., 2013),

which also helps to facilitate open communication and develop relationships amongst the transition team and family.

Open communication. It is recommended to have open communication with everyone involved; the family, early intervention program, and school (Denkyriah & Agbeke, 2010; Janus, Lefort, Cameron, & Kopechanski, 2007; Tobin et al., 2012), which benefits everyone involved in the transition (Bailey, 2012). If open communication is established from the initial transition planning stage, it will ensure continuity of information and services (Janus et al., 2007), which is essential for children with ASD who inherently have difficulties generalizing skills and adapting to change. While prior research suggests that there has historically been a lack of communication, especially with families (Hanson et al., 2000; Janus et al., 2007; Villeneuve et al., 2013), it has been identified as an essential component of successful transitions (Levy & Perry, 2008).

Written transition plan. One way to ensure open communication throughout the transition process is to have a written transition plan (Bryson et al., 2010). A written transition plan that is created and signed by all members of the transition team, including families, helps to ensure that everyone involved understands the framework of the transition process, the roles and responsibilities of each member, estimated timeline, essential information to be shared between settings such as child evaluations, information related to how to prepare the child for the transition (e.g., self-care, communication skills, problem-solving abilities), issues related to being placed in the least restrictive environment, and a behaviour support plan to help the child maintain and generalize behaviours (Brandes, Ormsbee, & Haring, 2007; Forest et al., 2004; Fox et al., 2002; Levy & Perry, 2008; McConachie et al., 2011). Another consideration for the written transition plan is to determine whether or not the receiving staff (i.e., school staff) have

the necessary training to support the student with ASD in their classroom (McConachie et al., 2011) because it would be difficult for staff to implement the transition plan if they are unable to follow through with the recommendations (Dymond, Gilson, & Myran, 2007). While there is no significant relationship between the amount of experience or education school staff have in terms of what transition practices they use, they are more likely to use recommended transition practices if they have specific training (Early, Pianta, Taylor, & Cox, 2001).

Family involvement. Having parents involved in transition planning is essential to decision-making (Bailey, 2012; Brandes et al., 2007; Denkyriah & Agbeke, 2010; Hanson et al., 2000; Janus et al., 2007; Levy & Perry, 2008). Parents may initially be concerned that their child's problem behaviours will increase because of the transition and that they will lose supports once placed in school (Fox et al., 2002), but their concerns could be addressed if they are informed about the process and feel as though they have decision-making abilities. Professionals involved in the transition can learn from parents because they know their child best and they are the ultimate decision-makers. Therefore, it has been recommended that the transition team provide parents with as much information as possible and be explicit about how the family can contribute to the transition process (Villeneuve et al., 2013). Furthermore, it would be beneficial for the transition team to help parents connect with community support, as the transition process may be overwhelming (Denyriah & Agbeke, 2010).

Overall, it is evident that the transition from early intervention into school involves many child, parent, program, and school factors; all of which can impact not only each other, but the ultimate outcome of the transition. Because the transition involves a multitude of variables, various transition practices have been recommended in the literature to help ease transition outcomes (e.g., family involvement). However, what is not clear thus far is to what extent child-

specific factors, such as emotional and behavioural functioning, can impact various aspects of the transition. It is understood that children with ASD experience higher levels of emotional and behavioural symptoms, regardless of whether they are going through a transition or not, yet this child-specific factor has not been thoroughly examined in the transition literature. For these reasons, the current studies sought to explore how child emotional and behavioural functioning can impact the transition from early intervention into school for children with ASD.

This paper-based dissertation examines the transition from early intervention into school for children with ASD and their families, and the potential effect it has on emotional and behavioural functioning. Using a basic qualitative approach (Merriam, 2002, 2009; Merriam & Tisdell, 2016), the first paper describes the experience of 11 parents who were interviewed to explore the parent experience of going through the transition from early intervention into the school system with a child with ASD. In particular, the intent of this study was to understand how parents of children with ASD describe the experience and to identify what common experiences might underlie the impact of emotional and behavioural functioning on a child's ability to adapt to the school environment. To gain a more thorough understanding of the experience, the second paper further explored the transition of five cases. This multiple case study sought to explore the aspects of the transition that underlie changes in a child with ASD's emotional and behavioural functioning during the transition to school, including how functioning changes as a result of transition, how parents experience these changes in functioning, and the benefits, challenges, and key transition experiences. Along with the semi-structured interview, parents were also asked to complete a standardized, parent-report measure of emotional and behavioural functioning to quantify symptoms of psychopathology pre- and post-transition. The

five case studies in the second paper help to further expand and enrich our understanding of the emotional and behavioural functioning of children with ASD as they transition to school.

Reflexivity

As a researcher, it is important to frame any bias that might impact the methodology and interpretation in the studies. Reflexivity has been consistently identified as being an essential component of qualitative research (Berger, 2013). In a qualitative methodology, the researcher is essentially using themselves as the research tool and thus, pre-existing bias and beliefs have the potential to influence the methodological process (Berger, 2013). Therefore, to ensure rigour and quality of qualitative research, I will explicitly describe the lens that guided my work.

There are significant areas of my background that might have influenced my doctoral research. I have been working with children with ASD and various other disabilities for the past 14 years. Initially, I started working on the frontlines in group homes, in respite, as a behaviour therapist or psychometrist, and more recently, as a psychology intern. In my clinical work, I have specialized training in ASD across the lifespan and have experience supporting their families, be it through consultation, direct coaching, or individual counselling. In fact, I have participated in many transitions of children with ASD from early intervention into school, in the capacity of a therapist, completing a psychological assessment, or advocating for children during transition meeting. However, in working directly with children with ASD and their families through transitions, I had observed some personal challenges they were experiencing during the transition, some of which were never addressed or supported. I felt that while transition team members were in-fact using recommended transition practices, they rarely looked at how well the child or family were adapting and coping with the transition.

For these reasons, I approach this work with the assumption that children and families do struggle with the transition in terms of emotions and behaviours and overall, these needs are not being fully supported by the professionals involved in the transition. Also, my experience influenced my decision to investigate the parent perspective of the transition specifically because in my opinion, parents were the most invested and impacted by the transition, aside from the children themselves. I do understand that the expectations of the receiving program (i.e., school) should be feasible, in-line with their philosophical approaches, policies and procedures, while also being time and cost-effective, but I do share the same interest as parents in ensuring their child is supported in school in the best ways possible.

To reduce the impact of my own bias and beliefs, I had to first acknowledge that my experience could impact my reactions to the parents' responses, the decisions made regarding which quotes were chosen to exemplify respective themes, and ultimately, my interpretation of the parent's experiences. In both studies, I was transparent with methodological decisions and the rationale behind them. I ensured that all interview questions were neutral, open-ended, and informed by established literature on the transitions of children with disabilities and recommended transition practices. In-fact, even follow-up questions asked about both positive and negative experiences (e.g., "What parts of the transition process did you feel included/excluded from?"). A member-check was also used to ensure that parents agreed with the interview data and the resulting interpretation, including some triangulation in the case studies, and the results were relatively in-line with previous literature, suggesting that the interpretation were credible and confirmable.

Ethical Considerations

Because both quantitative and qualitative approaches are used, ethical issues salient to both methodologies apply. In general, this study endeavoured to respect the dignity of participants as people by sustaining the right to informed and ongoing consent; this is an important tenet of both qualitative and quantitative research methodologies. However, because participants were able to participate in both study 1 and 2, the issue of consent was intensified because the study's purpose and procedural description was longer and more challenging to explain. Obtaining *informed* consent involves explaining to participants – in a manner that is understandable to them – the study's purpose, procedures, and data use. Great care was taken to explain the purpose and procedures of the study in a manner understandable to parents, as well as to obtaining informed and ongoing consent.

During recruitment, participants were informed about the overall purpose and general procedures. Parents were asked to provide informed consent for both studies and were asked to consent to having their de-identified data linked separately in a private file to their contact information so they may be potentially contacted for the follow-up interview. Participants who consented to be contacted for the interview were provided with more in-depth information about the purpose and procedures and again, provided the opportunity to give consent. Participants were informed that they could withdraw or change their level of consent at any time.

Ensuring privacy and anonymity of data is also a cornerstone of research ethics. All data were de-identified and kept confidential (i.e., stored with a minimum of two 'lock' protections, such as data file password, computer password, and locked laboratory). Data sources did not contain directly identifying information. For the qualitative data, once consent was obtained, participants were asked to come up with a pseudonym that was used for all identifying

information. The pseudonym was kept in an Excel spreadsheet, away from any consent forms. Participants were informed that all data presented or published from the study were de-identified and published under pseudonyms.

Conclusion and Overview of Subsequent Chapters

The transition from early intervention to school for children with ASD is complex and involves many factors, including child characteristics, stakeholders such as the early intervention program, school, the child's family, and community, and policies and procedures. While children with ASD may experience difficulties transitioning due to the nature of their disorder, little research has been conducted in an attempt to attribute certain transition practices to their actual adjustment outcomes, likely because of the complexity of the transition and implication of many variables. What is particularly unknown is exactly how children with ASD are functioning in terms of emotions and behaviours during the transition process and post-placement in school, and its connection to transition practices and experiences. It has been recommended that future research attempt to examine the individual, along with contextual variables that help to predict successful adjustment after the transition (Janus et al., 2007; Levy & Perry, 2008; Rous et al., 2007), which is the gap that the current studies attempt to address.

This paper-based dissertation examines the transition from early intervention into school from various viewpoints. The first paper explores the parent experience of going through the transition from early intervention into school and the second paper goes more in-depth on the transition of five children to explore the impact transition has on emotional and behavioural functioning. In the final chapter, an integration, including conclusions from both papers, will be reviewed to allow for a richer understanding of how psychological functioning can impact the transition to school.

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Chapter 2: Parental Experience of Transitioning a Child with Autism Spectrum Disorder from Early Intervention to School

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder that is characterized by two core set of symptoms: persistent deficits in social communication and interaction, and restricted or repetitive behaviours, interests, or activities (American Psychiatric Association [APA], 2013). Deficits in social communication and interaction have been considered as the most hindering aspects of the disorder (Fein, 2011). These deficits include difficulties initiating or reciprocating social interactions, understanding and using nonverbal communication, and deficits in developing, maintaining, and understanding relationships (APA, 2013). Restricted or repetitive behaviours, interests, or activities present as stereotyped or repetitive motor movements (e.g., hand flapping or lining up toys), need for routine and sameness, ritualized behaviours (e.g., having to say "hello" to every person who enters a room), restricted interests or being fixated on something that is abnormal in focus and intensity (e.g., fixated on water bottles), and hyper- or hypo-sensitivity to sensory information (e.g., being sensitive to sounds in the environment; APA, 2013).

While there are various interventions available to support children with ASD, the most evidence-based approaches use the strategies of Applied Behaviour Analysis (ABA; The National Autism Centre, 2015; Wong et al., 2014). ABA approaches utilize specific methods or "technologies" (Baer, Wolf, & Risley, 1968), such as antecedent and consequence strategies. Interventions are often intense (e.g., 20-40 hours of intervention per week), individualized to the strengths and needs of the child, occur early in development, use low teacher to child ratios (such as 1-to-1 or small group), and have highly trained staff (Perry, 2002; Perry & Condillac, 2003; Perry et al., 2008; Schreibman, 2000). More recently, there has been a trend towards more

naturalistic approaches that also incorporate behavioural strategies due to some of the weaknesses and criticisms of more intensive and structured behavioural interventions (Schreibman et al., 2015). Regardless of the intervention, children with ASD commonly have difficulties generalizing the skills they learned in early intervention, which can negatively impact a child's ability to succeed in various environments, such as school.

The nature of ASD can make school difficult for many children. For instance, social communication deficits can negatively impact their ability to make friends, understand classroom rules, and adapt to classroom or teacher changes (Tobin et al., 2012). Repetitive and stereotyped behaviours can be stigmatizing in a classroom, let alone affect a child's ability to attend to important information in the environment. Furthermore, sensory sensitivities can make noisy classrooms and hallways intolerable (Tobin et al., 2012). In summary, just because a child with ASD might be cognitively able to meet the academic demands of school, does not mean that they are always able to adjust to the changing demands and meet the emotional, behavioural, and adaptive requirements.

Social skill deficits experienced by students with ASD have been identified as one of the main reasons for supporting the inclusion of students with ASD in mainstream classrooms (Kasari, Freeman, Bauminger, & Alkin, 1999), with the hope that these skills will improve due to increased exposure to learning opportunities, the chance to practice skills, and modeling of appropriate skills. However, students with ASD still tend to be educated in more specialized services (Kasari et al., 1999) because of the many difficulties they experience once placed in school. Regardless of the classroom accommodations, modifications, and support needs required by students with ASD, inclusive perspectives of education emphasize their right to be educated

with their peers, which has resulted in students with ASD being increasingly educated in inclusive education.

Parent Perspective of Inclusion

Ultimately, inclusion of children with ASD in schools cannot be successful without the input and support from parents. This is important for two reasons. First, inclusion is now accepted in educational systems mainly because of parental advocacy, so their perspective of the transition process can provide valuable information regarding the current state of inclusion and how to best improve it for the future (Palmer, Fuller, Arora, & Nelson, 2001). Secondly, parents know their children best and they are the ultimate decision-makers regarding the educational placement of their child, which can be difficult when they have to choose between available inclusive, special education, and specialized programs (Leyser & Kirk, 2004; Palmer et al., 2001). Therefore, it is important to review the parental perspective of inclusion when reflecting on how to make the transition into school as stress-free and seamless as possible for children with ASD and their families.

Overall, parents of children with special needs in general tend to have a positive perspective of inclusion (de Boer et al., 2010; Elkins, van Kraayenoord, & Jobling, 2003; Leyser & Kirk, 2011; Palmer et al., 2001), but there are some parents who are more neutral, some who are willing to change their minds, and some who lean more towards special education or specialized programs as being ideal for their child (Elkins et al. 2003; Runswick-Cole, 2008). The parental perspective of inclusion can be complex (Runswick-Cole, 2008), as it is impacted by prior experiences with professionals (Palmer et al., 2001), the degree of impairment (i.e., having a child with more severe impairments can negatively impact their perspective; de Boer et al., 2010; Leyser & Kirk, 2011; Palmer et al., 2001), socioeconomic and educational variables

(de Boer et al., 2010; Leyser & Kirk, 2011), prior experience with inclusive education (de Boer et al., 2010), having a younger child, and having a child who has only been in special education for a short period of time (Leyser & Kirk, 2011). Parents may also hold a positive perspective of inclusion if they believe that their child will benefit more from an inclusive education. For example, parents have previously reported that they hoped their child would benefit from being exposed to more learning opportunities, having greater expectations placed on them, increased opportunities to practice their skills (Palmer et al., 2001), the opportunity to learn from typically developing peers and model their behaviour (Elkins et al., 2003; Mesibov & Shea, 1996), and less isolation and exclusion from the social community (de Boer et al., 2010). Irrespective of the variables that may impact their perspective of inclusion, parents do have pragmatic concerns (Runswick-Cole, 2008).

The pragmatic concerns of parents tend to involve how the school will be able to meet their child's needs. Previously reported concerns include a perceived lack of funding and resources (Runswick-Cole, 2008), reduced access to teacher aids, specialist involvement, and therapy services, size of the classroom (Elkins et al., 2003), less individualized attention and instruction (de Boer et al., 2010), fearing an insensitive or inflexible attitude from school staff (Elkins et al., 2003; Runswick-Cole, 2008), and concerns about the level of training of school staff (Elkins et al., 2003; Palmer et al., 2001). While their child ultimately has the right to access inclusive education, parents are concerned that their child may not make as many gains due to the characteristics of an inclusive classroom. For example, even though parents tend to acknowledge that their child's needs may be difficult to meet in an inclusive setting, some parents have reported that special education has worsened or slowed some of their child's potential social and emotional gains (Elkins et al. 2003). Parents are generally in favour of

inclusion as a philosophy, but they may still feel as though their child needs additional support in the classroom (Elkins et al., 2003).

Parents of children with ASD also tend to view inclusive education positively (Falkmer, Anderson, Joosten, & Falkmer, 2015; Parsons et al., 2009), especially in comparison to those whose children are placed in early intervention (Kasari et al., 1999). However, similar to the parents of children with special needs in general, they appear to be concerned about how their child's needs would be met in an inclusive classroom (Falkmer et al., 2015; Parsons, Lewis, & Ellins, 2009). On the other hand, these concerns appear to be more related to the nature of ASD itself, as opposed to environmental and contextual factors (e.g., class sizes and instruction). Parents have reported concerns about their child's ability to achieve curricular goals, concentrate in class, understand instructions, apply social skills, and their overall level of interest in others (Falkmer et al., 2015). Parents appear to view inclusion more positively if the teacher and school staff have an understanding of the impact of ASD on the child's behaviour, if they are flexible, use individualized teaching strategies, are willing to learn about the child, and have a willingness to teach the child (Falkmer et al., 2015).

Parent Perspective of the Transition to School

The involvement of parents in the transition process is essential to its success because chances are, they know their child best; an expertise that can be utilized by professionals in creating a transition plan and coordinating supports at school (Rous & Hallam, 2012). Furthermore, parents are likely personally invested in their child's care and how their needs are being met (Fox, Dunlap, & Cushing, 2002). In early intervention programs for ASD, parent participation and engagement are essential and often a requirement (Levy & Perry, 2008; Villeneuve et al., 2013), so parents are used to being highly involved and consistently informed,

but this might not always be the case in school. Therefore, the parental perspective of the transition process is valuable in understanding how to improve transition practices.

Not surprisingly, parents have a tendency of being child-centered in their perspective of transition and concerns tend to be related to the unique characteristics, strengths, and weaknesses of their child and how they are either strengthened or supported in the new placement (Stoner, Angell, House, & Bock, 2007). Furthermore, there are often discrepancies between funding models in early intervention programs compared to schools, which may create a window of time where a child does not receive beneficial services and accommodations at school (Janus, Lefort, Cameron, & Kopechanski, 2007) and consequently, students may receive less individualized and professional support. This has been a particular concern of parents because they have likely seen gains in their child's functioning in early intervention (Joseph, 2012) and could fear that their child might regress. Parents have also reported that they worry that the transition may not go smoothly and their child may not be happy in the new environment (Tobin et al., 2012). These concerns may be related to the change in relationships with professionals. In early intervention programs, parents tend to develop a relationship with the professionals who provide services to their child (Bailey, 2012), so when they transition to a new program, parents have to develop new relationships and they might fear losing communication with program staff (Brandes, Ormsbee, & Haring, 2007). Families depend on constant communication and a high level of engagement in early intervention programs (Villeneuve et al., 2013), which may not be feasible in an educational setting.

While communication with parents has been identified as essential to successful transitions, parents have reported a lack of communication during transitions and post-transition (Bailey, 2012; Brown, Ouellette-Kuntz, Hunter, Kelley, & Cobigo, 2012; Sansosti, 2009; Stoner

et al., 2007), which can result in parents feeling uninformed and confused as to their role in the transition (Villeneuve et al., 2013). Parents and/or guardians may then feel as though they are left out of the process and this could negatively impact their involvement in their child's educational program in the future. Parents have previously reported feeling excluded (Brown et al., 2012), despite expressing the desire to be involved in the planning and eventual implementation of the transition plan for their child (Stoner at al., 2007; Tobin et al., 2012). Parents have also reported a less positive perspective of the support their child receives once in school (Janus, Kopechanski, Cameron, & Hughes, 2008). Therefore, since family involvement is important, perceived barriers that may impact their involvement must be evaluated when planning a transition.

Recommended Transition Practices

According to the transition literature, various practices have been recommended to facilitate successful transitions for not only the child, but the family as well. The main recommendations include early planning, open communication between the two settings and the family, having a written transition plan that everyone is in agreement with, and family involvement. The goal of these practices is to ensure individualized transitions that meet the needs of the child and the family (Villeneuve et al., 2013).

The first step is to start planning early in the process, approximately 6 months prior to the final placement at school (Denkyriah & Agbeke, 2010; Levy & Perry, 2008). Early preparation allows for the whole transition team (i.e., early intervention, school, and parents) to share valuable information that would ease the transition between settings. A written transition plan is helpful in this regard because the roles and responsibilities, timelines, agreements between the two settings, essential information about the child, expectations and goals, and how the child and family will be supported can be outlined and agreed upon, similar to a contract (Brandes et al.,

2007; Forest et al., 2004; Fox et al., 2002; Levy & Perry, 2008; McConachie et al., 2011; Rous, Hallam, Harbin, McCormick, & Jung, 2007). The transition plan should outline the continuity of information and services (Janus et al., 2007), which is crucial considering the various differences between early intervention and school (Hundert, 2009). For example, the transition plan can outline exactly how the child will be prepared while still in early intervention (such as skill training for pre-requisite or school survival skills), how the family will be prepared (such as connecting them with support groups or workshops), and how continuity between the two settings will be facilitated (such as curriculum, teaching strategies, and expectations; Rous et al., 2007).

Overall, the literature on the transition from early intervention programs into school suggests that the family and child should ideally be at the centre of the transition. In order for the transition process to occur successfully, it is essential for families to be highly involved and provided with as much information as possible (Villeneuve et al., 2013), which is facilitated by recommended transition practices (i.e., early transition planning, open communication, and collaboration between settings). Ultimately, the goal of using recommended transition practices is to facilitate successful and seamless transitions however, the extent to which these practices are actually occurring and the impact they might have on a child with ASD and their family has not been thoroughly evaluated in the literature. Therefore, the current study sought to fill this gap in the literature by examining the parent perspective of the transition from early intervention to school settings in order to better understand how we can meet the needs of families through the transition.

Method

As part of a larger study examining the impact of emotional and behavioural functioning on the transition from early intervention into school, parents of children with ASD who completed the transition from early intervention into school with their child were asked to participate in a semi-structured interview to explore common transition experiences and to what extent recommended transition practices might have an effect on a child's ability to adapt to school. The current study is based on the philosophies of social constructivism, where reality is believed to be socially constructed by multiple interpretations of an event (Creswell, 2013; Merriam & Tisdell, 2016) and phenomenology (Husserl, 1913), where it is believed that people interpret their experiences and make meaning of their experience with a phenomenon (Merriam & Tisdell, 2016). The current study used a basic qualitative approach (Merriam, 2002, 2009; Merriam & Tisdell, 2016) meaning that the current study focuses on meaning, understanding, and process of the transition from early intervention into school, uses a purposeful sample of parents, data analysis is comparative and inductive in nature, and findings are descriptive and presented using interview themes. Overall, the current study sought to understand the perspective of parents who had gone through the transition phenomenon with their child to gain better insight into their lived experience and the interpretation of the interviews is focused on the meanings made by parents because of their experiences with the transition.

Purpose and Research Question

The purpose of the current study was to explore the parent experience of going through the transition from early intervention into the school system with a child with ASD. In particular, the effect to which the presence of recommended transition practices has on a child's ability to adapt to a new setting (i.e., school). Parents of children with ASD are one of the primary

stakeholders in the transition to school and therefore, their perspective was deemed essential to understanding the transition. Parents are able to provide insight into the status of successful transitions and how they can be improved in the future. To explore the parent perspective of the transition from early intervention to school, the following research questions guided the current study:

1) How do parents of children with ASD describe the experience of going through the transition from early intervention into school with their child?

2) What are the common parental experiences underlying the emotional and behavioural functioning of children with ASD when they transition from early intervention to school?

Participants

Participants in this study were invited to participate through direct communication with early intervention service providers, through advertisements on service provider or advocacy group webpages or newsletters, and on social media platforms. Participants were asked to complete an electronic consent form and the primary investigator then contacted the participants directly to set up the interview. Participants included parents of children aged 4 to 8 years who: 1) have a confirmed and documented diagnosis of ASD; 2) have fully transitioned from early intervention and were attending school full-time. A total of 11 parents participated in the study (5 in Alberta; 6 in Ontario). Individual demographic information can be found in Table 4.

Table 4

Child Demographic Characteristics

Child (age)	Parent	Diagnoses	Problem Behaviours	Language	Intervention/ Hours
Alex (6)	Angela	ASD	Aggression towards others and with objects	Severe delays	Parent training with therapist 1-2 hours/week
Declan (6)	Kim	ASD, ADHD, OCD, Dyspraxia, and Anxiety	Aggression towards others	Severe receptive and moderate expressive delays	Parent training with therapist 2 hours/week
Connor (5)	Caitlin	ASD	None reported	Delays in functional communication	Parent training with therapist 2 hours/week and preschool intervention 12 hours/week
Magnus (5)	Mollie	ASD	None reported	Slight delays, primarily with pragmatic language	Home-based intervention monthly, preschool intervention 9 hours/week
Emmett (4)	Jennifer	ASD	None reported	Delays	Therapist 4-6 hours/week, preschool intervention 4 days/week
Bryce (5)	Gary	ASD	None reported	Delayed approximately 12-18 months	Parent training with therapist 1 hour/week
Rory (8)	Giorgena	ASD, Language Disorder	None reported	Non-verbal	Therapist in daycare 25 hours/week and private intervention 4 hours/week
Emmanuel (6)	Nzube	ASD	None reported	Delays, but has made improvements	Centre-based 24 hours/week
Dan (6)	Tina	ASD	Difficulties with attention	Delays, but is verbal	Centre-based 24 hours/week and ABA support in school

| Jay (6) | Renee | ASD | Impulse control | Delays in pragmatic language | Home-based 2-4 hours/week for 6-12 weeks |
| Phillipe (7) | Margarita | ASD | None reported | Delays, uses words and short sentences | Centre-based 24 hours/week |

Procedure

Within the first four to eight weeks of starting school, each parent participated in one interview over the phone with the primary investigator at a time that was convenient for parents and one parent submitted answers to the interview questions through email. Interviews lasted between 30 minutes to just over one hour. Interviews were digitally recorded and transcribed verbatim. Interview questions were based on previous literature regarding the educational transitions of children both with and without disabilities, as well as research-identified ideal transition activities (e.g., Levy & Perry, 2008), as summarized in the introductory section of the current paper-based dissertation. The primary investigator developed an interview protocol of 16 open-ended questions with follow-up prompts, if required. The questions covered the recommended transition practices of transition planning, open communication and collaboration, and family involvement. For every recommended transition practice, participants were asked how they felt it impacted their child. For example, previous research has suggested that family involvement is an ideal transition practice, so a question was, "In what way did family involvement in the transition process have an impact on your child's ability to adapt to their new setting?" A copy of the interview transcript can be found in Appendix A.

Ideas and comments from all interviews were transformed into more specific themes using a basic thematic analysis (Braun & Clarke, 2006). A basic thematic analysis was used to identify patterns and themes that emerged from the parents' experiences, as explored in the

interview. "A theme captures something important about the data in relation to the research question and represents some level of patterned response or meaning within the data set" (p. 82), which can help to tell a story about the participants' experiences (Braun & Clarke, 2006). Similar to the procedure outlined by Braun and Clarke (2006), the primary investigator first familiarized herself with the data by transcribing all responses and organizing them by question. Examining the entire set of responses helped to create primary codes, and then themes were created from these codes. Notes and comments were made in the margins of the document and exemplary phrases were identified. The themes were reviewed, organized into a table, and subsequently named and defined.

To ensure reliability and validity of the thematic analysis, an audit trail was kept to keep track of thoughts and comments the primary investigator had about the content of the interview, the method used for determining codes, criteria for themes, and she identified exemplary quotes for each theme. Participant quotations were important to include in the process, as they helped to ensure the accuracy in interpretation of the themes. Prior to the final dissemination of the study and publication of results, data was confirmed with participants as part of member-checking to give participants the opportunity to review the results of the interviews to ensure they were an accurate and valid representation of their perspective of the transition process. All parents in the study agreed that the results were an accurate representation of their perspective.

Results

The following section is divided into two sections. In the first section, overall interpretations of the success of transitions, as reported by parents, are discussed, along with perceived differences between parents who coordinated the transition themselves versus those who participated in the *Connections for Students* model in Ontario. In the second section, six

main themes and eleven sub-themes from the interviews are described and for each theme, specific quotations are included.

To situate the results, eight parents explained that they had to coordinate the transition from early intervention into school themselves, whereas three other parents had received support through a government mandated program in Ontario called *Connections for Students*. The *Connections for Students* program outlines transition practices to support the transition out of government funded early intervention programs into the school system. Practices include establishing a transition team consisting of early intervention staff, school staff, parents, and any other relevant professionals, planning approximately six months pre-transition and supporting the child and family six months post-transition, and assisting with continuous information sharing and continuity of learning strategies between settings. Even though some of the parents in this study participated in the *Connections for Students* program, participation was not clearly related to better outcomes for parents and children. For example, Rory, a boy who participated in the *Connections for Students* program, experienced considerable maladjustment once he was in school. Rory's mother reported how this was "the only time in his life where he was very violent and aggressive for about a year". To a lesser degree, Emmanuel, another boy whose mother participated in the *Connections for Students* program also struggled with the transition at first. His mother explained, "He started school in September and it was a bit rough because everything was strange to him. [He] doesn't know how to socialize or initiate play".

Also, some children reportedly handled the transition well, even when parents had to coordinate the transition themselves. In fact, some children were especially successful, such as Dan whose mother reported, "He handled it pretty well, only because of his own personality. He, himself...he hates little transitions, but he likes big transitions. He likes new adventures. He

thought it was cool in the beginning. I think he really liked it". Despite this, four parents discussed how their children experienced considerable maladjustment and one parent described how their child experienced some discomfort when they initially started school. For Jay, this was a difficult life change because it required him to progress quickly. Jay's mother explained that "there [are] just so many changes. He had to adjust really fast. From having like a toddler attitude to being an independent kid". Because some children struggled with the transition and some children did not, regardless of participation in an organized transition program like the *Connections for Students* program, it is difficult to deduce that these types of programs are absolutely necessary for a child to adjust well to school.

Overall, adjustment to school after participation in an early intervention program appears to be related to variables that are specific to the child, parent, and context surrounding the transition, which supports the individualization of the transition process. For example, even though all parents discussed the importance of planning, the degree to which it impacted a child's adjustment to school was not consistent. To further explore the variables that impact a child's adjustment during the transition, the following section outlines the six main themes and eleven sub-themes, with specific quotations from the interviews. A summary of all themes can be found in Table 5.

Table 5

Summary of Themes

Theme and Subtheme Names
1. Parent Anxiety
1.1 Uncertainty
1.2 Impact on Child
2. Preparation
2.1 Child Preparation
2.2 Parent Preparation
2.3 School Preparation
2.4 Logistics
3. School Challenges
3.1 Communication
3.2 Intentions vs. Reality
3.3 Placement Decisions
4. Parent Involvement
4.1 Squeaky Wheel
4.2 Time and Financial Requirements
5. Early Intervention Support
6. Benefits of Transition

Parent Anxiety

     All parents reported that they experienced various levels of anxiety throughout the

transition process; ranging from anxious thoughts to having meltdowns or missing work. For

parents who experienced only anxious thoughts, the focus tended to be related to the uncertainties involved in a transition. Anxious thoughts included whether their child will be able to adapt, peer relations, keeping up with academics, and level of support for the child at school. For example, Phillipe's mother was concerned about teacher support in the classroom. She stated, "I was a little scared about not knowing what would happen … It was Phillippe and one therapist, but in the school, it is different. It is one or two teachers for 25 kids, maybe they don't have support". In comparison, Alex's mother struggled much more with the transition. She reported,

> I was a mess. I found it really stressful. I had anxiety attacks. When we first started looking at the transition, I was starting to get anxious and nervous and you know, trying to figure it out like how am I going to prep him for this? And there is no guideline for this. There are no instructions included, so I found it really stressful. I was having some physical reactions even because I found it so stressful. I had to take a week off work.

> Some parents also discussed how their own anxiety or worries possibly impacted their child and family. Jay's mother discussed how "the anxiety [parents] feel then triggers [their] kids because they feed off [them]. It's just a cycle". Dan's mother further explained,

> I've been so wiped out and so tired and so scared. It's has not been a good space to be in. It's not a nice way to raise your kid right. To have no place to go and no education that will support you. You know, not knowing what will happen next. Like it's just really scary stuff. Very stressful.

Therefore, it is possible that with these families, some of their child's difficulties adjusting to school could have been related to parent maladjustment.

Preparation

All parents discussed the importance of preparation, not only for their child, but for themselves and for the school. Further, most parents described how preparation helped their children to adapt to the new setting and it also relieved some of their own anxiety and worries. For example, Bryce's mother reported, "Had Bryce gone into the school cold-turkey, it would have been very difficult for him. We would have dealt with a very sad, maladjusted boy for a substantial period of time, I believe".

An important part about preparation was that it helped to ensure a level of consistency for the child and the family. Alex's mother explained,

> It wouldn't have gone well at all because it would have been unexpected; different school, different people, different teachers. Like it would have been a big mess from the beginning to end without preparation. His whole life is routine and then you're taking a big chunk of his routine from the past few years and then suddenly changing it.

While all parents reported some sort of preparation at least two months before the transition, some parents felt that more time would have helpful in supporting their child's adjustment. Phillipe's mother said, "I think more time to plan would have been beneficial for him to have names and faces and to know who is going to help with those sorts of things".

Child preparation. According to the parents in this study, all but one child was prepared for the transition or were at least as prepared as they were going to be. For parents, the importance of preparing the child was to set them up for success by increasing their familiarity and comfort level with school. Some strategies included visiting the school ahead of time and creating visual tools for the child, such as a social story, having pictures of the new school, and watching videos about school on YouTube. To increase their child's comfort level in the

classroom, some parents discussed the importance of teaching pre-requisite skills such as toileting, eating, social skills, and academics. In particular, some parents were particularly concerned about their child's ability to keep up with school curriculum because in early intervention, academics were not a priority. Emmanuel's mother reported, "Reading, writing, how to behave, how to play with others…if you rely on the school to teach him everything, he's not going to get it. So, I had to give him what he needs".

Parent preparation. Another aspect of preparation was for parents themselves. While parent's own preparation did not appear to be as much of a priority for parents as compared to preparing their child or school staff, when queried, parents discussed many ways that they ensured they were prepared to help their child through the transition. Parents discussed how they received support from the transition team (i.e., those professionals who were helping the child transition) such as receiving recommendations for strategies to use at home to assist with continuity with school, and most parents felt that they were able to bring their concerns forward to the team and have them resolved. Parents also sought out support from various other sources, such as participating in online forums, accessing organizations such as the Autism Society of Edmonton or Autism Ontario, attending workshops, participating in parent groups on social media, and talking to other parents with similar experiences.

School preparation. All parents discussed the importance of preparing the school for the transition. While some parents were happy with the way their child was supported at school, many parents were concerned about the school's ability to meet their child's needs, especially since they were coming from early intervention programs that were individualized in nature. Parents reported that schools often had limited knowledge of ASD and sometimes did not understand their child's specific strengths and needs. For example, Rory's mother explained how

he was "ignored" by his teacher and aides at times and was left to play on his iPad because he was "finished therapy, so [he had] a lot of behaviours and he [was] the only one walking in kind of chill" compared to the other students in his class who had more severe needs. Rory's mother felt that his teachers did not have a good understanding of what his needs were, which resulted in him exhibiting challenging behaviours to seek out attention.

To help mitigate the perceived lack of understanding, parents discussed the importance of teacher training in ASD so that they would better understand the unique strengths and needs of their child. For example, Declan's mother explained,

> Sensory is a huge part of it, but they don't know anything about sensory or calming techniques. Like in early intervention, she knew more because she was well experienced. I mean, it's like 1 in 48 boys now, so you're going to have kids that you need to accommodate.

Another strategy that parents used to help prepare teachers to support their child's strengths and needs was to create a learning profile or a booklet what was "All About Me" to provide the school ahead of time. The goal was to ensure the school knew exactly what kind of child they were receiving and to ensure they had the time to prepare for placement.

Logistics. There are certain aspects associated with daily functioning at school that were often overlooked in transition planning and according to parents, they ended up becoming challenges. Some parents discussed the issue of using the washrooms at school. Compared to early intervention, the washrooms at school are large, populated, and generally private. In early intervention, the washrooms are less private and there is support from an interventionist. For some children, it was not until they started school that it was evident that they had difficulty using the washroom independently and appropriately. Similarly, some children also had

difficulties demonstrating appropriate behaviour on the school bus, simply because they did not have experience taking the bus. Parents suggested targeted skill training prior placement, increasing familiarity with the use of visuals, and visiting the school ahead of time.

While all parents brought their child to visit the school ahead of time, the issue of timing of preparation was another logistic that was often overlooked. The school year ends in June of every year, which impacted the planning process. For example, if the family visited the school during the summer, it would not have been the exact environment that the child would be exposed to come September. Emmanuel's mother explained, "So it was two different settings, so there were no children or teachers around". Further, staff changes can happen right up to September, so it can be difficult to fully prepare the teacher and aides before the child attends and it leaves little to no time to increase the child's familiarity with staff.

School Challenges

Even though some parents in the study were generally happy with how the school supported their child through the transition and as the child started school, many parents raised concerns. Many challenges involved in interacting with the school were primarily related to the differences between early intervention and school, and some of the realities of attending public school. The main challenges reported were related to communication, school intentions vs. the realities, and placement decisions.

Communication. One of the biggest complaints, regardless of whether or not they were happy with the school post-transition, was the level of communication parents had with school staff. In early intervention, communication was high in frequency. Parents discussed how they would receive daily updates, were informed about what skills were being targeted, and were aware of the people who were working with their child. In school, it was clear that this

information was not as readily available and parents discussed how it was too difficult to get that kind of information directly from their child because of communication delays. Jay's mother explained,

> Trying to get the staff at school to understand that I can't ask him 'What did you do at school today?' and get a regular answer. So, I really need more information about his day. If he had a problem I need to know so that I can talk to him about it. In early intervention, I got a face-to-face every day and phone calls and progress reports and stuff on a much more regular basis. You go from knowing everything in early intervention to knowing like nothing.

Similarly, Dan's mother took it upon herself to ask the school to increase their level of communication. She explained,

> Well they have the communication log right, so I said, it only said 'Dan had a good day' or 'Dan had a bad day'. Like that is the communication I was getting. So, I called the school and said that [with] kids with autism, you can put a piece of paper in with pictures. I'll even photocopy it to save the school money; pictures of the activities like gym or circle time. Every day, just circle what he did and then when he comes home, I can say 'What did you do today?' and then he can point and say, 'I did circle time' because it's circled and it's a basic. It's how autistic kids can communicate.

Intentions vs. reality. Many parents discussed how they were disappointed with what the school was able to offer their child in terms of supports and additional services (e.g., access to a speech and language pathologist) and that this didn't always match their initial expectations. Bryce's mother stated, "Our school board has their 'talk' down pretty well. Their 'walk', however, [was] another matter". While many parents were disappointed, it appeared that many

understood that it was difficult to offer more individualized supports in a school environment. For example, Rory's mother explained, "I did find that it was so hard to get the autism services specialists into the classroom. Their staff is just not big enough and they service the whole school board" and Declan's mother added, "A class size of 37 is a lot and how do you accommodate for universal education where they accommodate visual learners or kids that need to write…honestly I don't know how they do that".

Another reality associated with school was the level of access to specialized professionals. Dan's mother stated, "You know, like you won't qualify for speech therapy. I didn't really understand that stuff at the time, so I was just hopeful. I am less hopeful now". Once parents became aware of this reality, they explained that they became frustrated because the school would not allow their own private service professionals to provide support in the classroom, even if parents paid out of pocket. While this is likely tied to school board policies, it was frequently mentioned as a way that their child could still be supported, especially if the school was not fully prepared. For example, Rory's mother hired back the same staff from early intervention to help support his increased challenging behaviours at school, but the school was hesitant to have them in the classroom, so the early intervention staff worked with his daycare instead.

Placement decisions. One of the most important decisions for parents was the ultimate placement their child would be in. This was often a difficult decision because sometimes placement decisions were not ideal, such as having a verbal or high-functioning child placed in a small class with primarily non-verbal or much lower-functioning students. Some students had to be bussed far from home because the home schools did not provide enough support. A challenge in making placement decisions was voiced by Alex's mother who said, "Like when I first heard

about the transition I started to think, 'What if I pick the wrong school? What if I don't pick the right program?' So, I kind of felt like, where does he fit?". Parents were worried about making the wrong choice for their child and they sought out additional information about various placement positions. Parents recommended visiting the school ahead of time, getting to know the staff who will be working with the child, and talking to other parents about their experiences.

Parent Involvement

All parents discussed the importance of being highly involved in the transition from the planning stage to post-transition. Some parents also discussed how they had to be not only highly involved, but vocal with the transition team to ensure their child received the necessary level of support at school. Rory's mother called this "the squeaky wheel". She explained,

> The sad thing is that most of the parents out there don't even know that they [autism services in the school] exist. Especially given the parents in my son's school, like in the community we live in, there are a lot of immigrants or who are less educated and I bet you that most of them have no clue as to what is actually available to them. So, these experts from autism services probably spend a lot of time with the kids that have pushier parents or more affluent or more educated parents who demand things. The ones who are really vulnerable get nothing.

Bryce's mother added, "but it is these other children who are truly losing out by not having had a strong voice to advocate for them at the beginning of this process."

Parent time and financial requirements were other aspects of parent involvement that were not directly discussed by parents, but were obvious in their responses. All parents discussed how they had to put in extra time, outside of the transition team meeting times, to ensure their child and the school were prepared for the transition. Some parents put in countless hours

priming and skill-training with their child, preparing information packages about their child's strengths and needs for the school, attending courses or workshops (e.g., bus safety), and teaching about specific learning strategies for school staff. Alex's mother, for example, "spent a lot of time on [her] own working with him and reminding him, and showing him people and where he was going to be. It [took] a lot of repetition to set that idea and make him comfortable". The transition also required additional financial requirements, like paying for a tutor, additional behaviour intervention, and speech and language intervention.

Early Intervention Support

All parents discussed the support they received from their respective early intervention service providers during the transition. They spoke positively of how they were there to advocate for the child during transition meetings with the school, coordinated ABA learning strategies with the school when possible, and supported parents by answering questions or simply checking-in with how they were doing. Alex's mother explained how "the early intervention program [was] great. They were really supportive. They check up on [her]". Jay's mother reported,

> We did have the early intervention attend the first couple of meetings and she kind of helped with me knowing what to ask and that kind of thing. She was able to help give a basic idea of Jay and his needs. She was available and said that we can call.

Benefits of Transition

Even though the transition yielded various challenges for parents and their children, some parents discussed the benefits of going through the transition and ultimately, just having the opportunity for their child to attend school. Benefits included improvement in skills and feeling included in the greater school community. For example, Emmanuel's mother reported that he

demonstrated improved communication skills, increased verbal expression, and in the end, he was requiring less individual assistance in the classroom. Phillipe's mother also reported benefits. She reported,

> Because you know, now for him, he has more communication because he has more contact with other kids who are talking all the time. Now he improved his language. I think the school helped a lot because in early intervention, most kids are not talking. But in school, it is the opposite.

Discussion

The findings of this study suggest that according to parents, the transition from early intervention to school is complex and it creates challenges for the child, their parents, and the school. In particular, the transition appears to have a significant impact on both parent and child functioning, regardless of the transition practices used. Despite this, the recommended transition practices (i.e., early planning, open communication, collaboration between settings, and family involvement) were found to support successful transitions. The following section summarizes the conclusions drawn from the interview themes in terms of recommended transition practices and their effect on the child and family.

Parent and Child Anxiety

Regardless of the transition practices used, even when parents reported that the transition was successful and resulted in benefits for their child, a degree of parent anxiety consistently emerged as an experience. Parent anxiety was often related to their concerns about how the transition would impact the child and the uncertainties about what the placement and level support at school would look like. Moreover, parents discussed the challenges of working with the school, such as limited communication, reduced supports and knowledge of learning

strategies for children with ASD, and difficulties determining the best school placement. Parents identified preparation and high parent involvement as ways of negating anxiety and supporting successful transitions. Additional support from early intervention staff was also identified as being helpful. While no other research study to date has examined the parental experience of going through the transition from early intervention to school specifically, the themes that emerged in the current study were consistent with previous literature on the educational transitions of children with ASD in general, the transition into kindergarten, and the transition from elementary to secondary school (Connolly & Gersch, 2016; Craig et al., 2016; Dillon & Underwood, 2012; Making, Hill, & Pellicano, 2017; Newsome, 2000; Parsons et al., 2009; Stoner et al., 2007; Tobin et al., 2012; Tso & Strnadova, 2017).

It is well known in the literature that parents of children with ASD experience high levels of stress (Hayes & Watson, 2013; Quintero & McIntyre, 2010; Rao & Beidel, 2009), so it is not surprising that a big life change, like the transition from early intervention to school, would trigger additional stress. Heightened parental anxiety during times of transition has been consistently reported in previous literature (Craig et al., 2016; Newsome, 2000; Tobin et al., 2012; Tso & Strnadova, 2017). Parents tend to be child-centered when it comes to transitions (Stoner et al., 2007), which was evident in the sources of anxiety. Parents were concerned about how the transition would impact their child, similar to Tobin et al. (2012), where parents worried that their child would be unhappy or that transition wouldn't go smoothly and Makin et al. (2017), where parents worried about how their child would cope with the transition. Ultimately, parents appear to be concerned about making sure their child was happy, comfortable, and able to learn in their new placement. This suggests that parents are likely personally invested in the transition, which professionals should consider when supporting the family through the

transition. While the transition might be common practice for professionals, it is a big deal to families and their level of investment is substantial.

Furthermore, parents in the current study reported anxiety about the uncertainty and unanswered questions involved in the transition. Parents discussed feeling as though they did not know what to expect and that the transition process was something foreign. For these reasons, parents were concerned about making the "wrong" decision for their child. This is similar to Makin et al. (2017), where parents also reported many feelings of uncertainty. Not surprisingly, to offset these feelings, parents discussed the need for transition preparation and open communication with professionals. Tobin et al. (2012) reported a similar interaction between their parent interview themes, in that preparation and communication also helped parents cope with the transition. These results emphasize the importance of preparing for the transition ahead of time and having open communication as key transition practices in all transitions, not only to support the child, but to ease parent anxiety as well. It is fair to deduce that if parents are comfortable and at ease during the transition, it is likely that they would become more involved and satisfied with the process.

Transition Planning

With regard to transition planning, most literature recommends that it begin as early as possible (Levy & Perry, 2008; Tobin et al., 2012). Parents in the current study typically had only a few months to plan the transition and they continuously reported that they wanted additional time. Time for transition planning is important because there are many stakeholders who need to prepare. For child preparation, all parents reported that they at least visited the school ahead of time and some were able to meet their teacher. Because school visits often happened in the summer or a few days before school started, the visit was not the same exact environment that

the child would be exposed to in September once the teacher is confirmed and other children are in attendance. Exposure to the new environment should be more than just an orientation to school (Tso & Strnadova, 2017). As recommended by Stoner et al. (2007), children ideally need to be provided with enough time to "identify-observe-explore". Because children with ASD often struggle with change, they would benefit from having time to identify the new environment and individuals in it, parents and professionals should have the time to observe the child's reaction and provide additional support as needed (e.g., visuals), and then allow the child the opportunity to explore and become comfortable (Stoner et al., 2007).

To prepare the school, parents discussed how school staff needed to have an understanding of ASD and their particular child's strengths and needs. Previous researchers have also suggested that schools need to have a thorough understanding of the child's needs before planning begins (Lovitt, 1999; Starr, Foy, & Cramer, 2001; Stoner at al., 2007; Tobin et al., 2012). Thoroughly understanding the child before transition planning begins is important because any deficits in knowledge or skills in the school staff could be identified ahead of time and training or professional development could be activated prior to the child's placement in the classroom. Not only would school staff feel more prepared and confident in their ability to meet the child's needs, but increased capacity building could help other children who would transition in the future. In addition, parents would likely feel more supported by schools if they took the time to get to know their child and demonstrate how they are preventatively ensuring a certain level of support.

Open Communication

In order for transition preparation to occur, it requires open communication with all stakeholders involved. Parents in the current study frequently discussed the importance of

communication throughout the transition and how it should continue with school staff once the child is placed in the classroom, which is consistent with previous literature (Connolly & Gersch, 2016; Dillon & Underwood, 2012; Stoner et al., 2007; Tobin et al., 2012). Parents further added how this open communication helps to ease their anxiety and worry related to the transition because it minimizes the unknowns involved and helps them to feel heard and understood by the professionals who are working with their child.

In early intervention programs for ASD, parents were typically used to having frequent communication with staff and they felt that they had a good handle on what their child's day looked like. This was not the case when it came to communicating with the school. Parents reported that they often had difficulty getting information from the school or sharing important information with them. The challenge of having consistent and open communication with schools is nothing new for parents of children with ASD (Batten, Corbett, Rosenblatt, Withers, & Yuille, 2006). What can complicate open communication during educational transitions is that it can take many shapes. It requires communication between the parents and school, within the school (e.g., if there are multiple staff working with the child), and between school and outside agency (i.e., early intervention program); it only takes one breakdown in these lines of communication to negatively impact the parent's perspective (Tobin et al., 2012).

Some have argued that it is not necessarily the school's responsibility to facilitate communication (Dillon & Underwood, 2012), but with a lack of case managers to assist with the transition, this responsibility is left to parents who are already experiencing high levels of anxiety due to the transition. Unlike parents of typically developing children, parents of children with ASD might have less communication with their child about school because of communication delays (Stoner et al., 2005), which parents in the current study consistently

mentioned as a barrier to understanding how their child is doing at school. Therefore, during such a large life change that is riddled with uncertainty, professionals should increase their contact with parents, not decrease it (Newsome, 2000). With the absence of a case manager who can facilitate communication between the multiple stakeholders, recommended strategies include having a notebook that is exchanged between home and school, planned meetings, phone calls, emails, and informal conversations (Stoner et al., 2007; Tobin et al., 2012).

Parent Involvement

Parents in the current study were highly involved in their child's transition, be it with planning the transition with professionals, bringing their child to visit the school to increase familiarity, to teaching pre-requisite skills at home. While all parents reported that parent involvement was essential to a successful transition, they did have to spend a great deal of their own time to make sure it went smoothly. However, this high parent involvement often involved parents having to take on a new role; the squeaky wheel. This is similar to previous literature, where parents have reported feeling as though they had to be "pushy" and fight for their child in order to get what they thought their child needed (Connolly & Gersch, 2016; Makin et al., 2017; Tobin et al., 2012). In practice, this might create an air of tension that is not conducive to facilitating open communication and collaboration. This tension with parents could possibly be offset if parents felt that the professionals involved in the transition utilized their perspective and expertise (Dillon & Underwood, 2012).

Recommendations

Even though it was not our research aim, one of the goals of examining the parent perspective of the transition from early intervention into school was to provide feasible and useful recommendations to ease the transition for all stakeholders. Parents are directly involved

in the transition from start to finish, so their perspective is invaluable in determining how we can increase satisfaction and involvement in the process. Based on the themes that emerged from the interviews, parent recommendations, and in consideration of previous literature, the following recommendations would be beneficial in supporting the transition of children with ASD from early intervention to school:

- Listen to parents. Utilization of their knowledge and expertise regarding their child will not only provide helpful information to use in transition planning, but will also reduce tension in the working relationship. Parents want to feel heard and understood. Further, professionals should make sure to check-in with parents and answer any questions they have because there is a lot of uncertainty involved in the transition. Make sure parents are not left to figure out the transition on their own.

- Increase communication. Be aware that parents used to receive frequent communication in early intervention and they might expect the same level of communication during the transition and once their child starts school. Further, parents might not be able to just ask their child how they are adapting, so parents become dependent upon communication with the school. Communication should start immediately once a transition date is determined, throughout the transition, and once the child is in school. Share as much information about the child as possible because everyone involved in the transition needs to understand the strengths and needs of the child.

- Prepare for the transition as early as possible. Children with ASD and their parents need time to cope with leaving early intervention and adjusting to a school environment. Children with ASD need more than just an orientation to school; they need to become familiar with their new surroundings. This means visiting the school ahead of time,

meeting the teacher and other relevant school staff, practicing taking the school bus, and using the washroom independently. Parents are encouraged to talk to other parents who have gone through the transition and other parents who have children in the same placement or school, and access parent support groups, either in person or through social media. Furthermore, tools like visuals (e.g., pictures of the school or important people, map of the school, timetable) and an "All About Me" profile outlining the child's strengths and needs might prove to be helpful.

- Facilitate clarity and cohesion in the transition process. Because parents report feeling alone and uncertain about the transition and the education system in general, it is recommended to have a professional act as the transition lead. This designated professional can facilitate communication by scheduling meetings with all stakeholders, ensuring that the necessary information is passed from early intervention to the school, and can help support parents by answering any questions that might come up and help with decision-making (e.g., deciding on a school placement). If a professional lead is not possible, it is recommended to have at least a detailed written outline of the transition for parents to refer to in order to anticipate what will happen with the transition so they can plan accordingly.

Limitations and Future Directions

The current study highlights the complexity of the transition from early intervention into school, particularly for parents. Despite this, there are some limitations to the study. First, the results of the study are based on the perspective of a relatively small number of parents who chose to talk about their transition experiences. It is quite possible that the parents who participated in this study were those who did not experience a smooth transition and were

compelled to tell their stories. This is often a criticism of qualitative research with distinct populations, however, the themes that emerged from these interviews were consistent with previous qualitative literature on the parental experience with various types of educational transitions for children with ASD, suggesting that the experiences in the current study can be generalized. Also, it might be more appropriate to say that the experiences are more so those of mothers of children with ASD, as no fathers participated in the study and were therefore under-represented. It is possible that mothers tend to be more involved in the transition, but future research should strive to recruit more fathers.

The current study does have a strength in that it is an in-depth examination of parent experiences, but a limitation is the lack of triangulation, meaning that we were unable to confirm the experiences reported by parents. Parents were given the opportunity to review the data from the interviews, but additional information to support their views were not collected as part of this section of the larger study. Even though the parent perspective is valuable, it is difficult to discern if their experiences aren't biased in one way or another. Regardless, parents are the ultimate decision-makers in the transition and thus, their experience was deemed valuable, regardless of their perspectives or bias'. Future research could seek to gather more details about a particular transition, such as in a case study format. The perspective of early intervention staff, school staff, and perhaps the child themselves could be used to enhance our understanding of the transition from early intervention into school.

Conclusion

The transition from early intervention programs for children with ASD and their families can be difficult because it creates particular challenges for the child, the parents, early intervention staff, and school. Educational transitions are not a single isolated event; they are

long-term processes that require enduring and consistent support (Tso & Strnadova, 2017).

Overall, parents in the current study identified at least a degree of anxiety about the transition in both their child and themselves, which is a variable that might not initially be considered by professionals when supporting a family through the transition from early intervention into school. The anxiety experienced by parents appears to be related to the many differences between early intervention programs and the nature of the school system. To offset this anxiety, transition planning and open communication were identified as key transition practices. Transition planning and open communication ultimately result in increased predictability for parents, something that will benefit not only the parents, but the children with ASD who are transitioning and the rest of the transition team.

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Chapter 3: Children with Autism Spectrum Disorder and the Transition from Early

Intervention to School: A Multiple Case Study

Autism spectrum disorder (ASD) is a neurodevelopmental disorder characterized by two

core sets of symptoms: 1) impairments in social communication and interactions and 2)

restricted, repetitive, or stereotyped movements, activities, or interests (American Psychiatric

Association [APA], 2013). Symptoms can range from mild to severe and impact daily

functioning. While all individuals with ASD experience difficulties with social communication

and interaction, as well as exhibit restricted or repetitive behaviours or interests, there is

variability in how these symptoms are expressed. The exact presentation may vary based on

symptom severity, psychiatric or medical comorbidities, secondary disabilities (e.g., social

isolation, problem-solving difficulties), and environmental variables.

Autism Spectrum Disorder and Psychopathology

Qualitatively, individuals with ASD have difficulty regulating their emotions and

behaviours, which has given way to increased interest in symptoms of psychopathology in this

population. Individuals with ASD are at a greater risk of developing other mental health

disorders (e.g., 70% met criteria for a second psychiatric disorder in Leyfer et al. (2006); 41%

met criteria for two or more psychiatric disorders in Simonoff et al. (2008). Further, these trends

might not account for those who have subsyndromal levels of a psychological disorder (i.e., meet

most, but not all diagnostic criteria; Leyfer et al., 2006). In particular, high rates of symptoms of

anxiety (e.g., Gotham, Brunwasser, & Lord, 2015; Hurtig et al., 2009; Shroeder, Weiss, &

Bebko, 2011), depression (e.g., Kim, Szatmari, Bryson, Streiner, & Wilson, 2000; Mazzone et

al., 2013; Strang et al., 2012), attention difficulties (e.g., Leyfer et al., 2006; Skokauskas &

Gallagher, 2012), conduct problems (e.g., Salomone et al., 2014; Simonoff et al., 2008; Zachor et

al., 2011), and obsessive compulsive behaviours (e.g., Gillott, Furniss, & Walter, 2001; Leyfer et al., 2006) have been reported.

Even when accounting for overlapping symptoms with ASD, these trends are still evident (Hurtig et al., 2009; Kuusikko et al., 2008), suggesting that the frequent occurrence of additional psychopathology in this population is greater than chance (Leyfer et al., 2006). Overall, high levels of psychopathology appear in all levels of intelligence and severity of ASD symptoms (Kim et al., 2000; Mazzone et al., 2013; Schroeder et al., 2011; Simonoff et al., 2008; Strang et al., 2012), and have been related to deficits in language abilities (Gotham et al., 2015; Kim et al., 2000) and being older, particularly in adolescence (Mazzone et al., 2013). Furthermore, the more emotional and behavioural symptoms reported, the greater the impact on overall functioning (Mazzone et al., 2013), life satisfaction, difficulties with emotional regulation, and social challenges (Gotham et al., 2015).

High levels of psychopathology are also associated with the nature of ASD itself, as there is much diagnostic overlap. For example, difficulties dealing with social situations, problems coping with change or adversity in the environment, need for routine, sensory sensitivities, and stereotyped behaviours can be associated with a variety of psychological disorders. For instance, if a child with ASD is depressed, they may demonstrate increased of irritability or self-injurious behaviours, whereas this may not be as characteristic in a typically developing population. Due to overlap in symptoms and the atypical presentation of some symptoms, it can therefore be difficult to differentiate between symptoms of psychopathology and those related to ASD (Kim et al., 2000; Leyfer et al., 2006; Matson & Nebel-Schwalm, 2007).

For diagnostic clarity, it appears that symptoms of psychopathology fluctuate, whereas symptoms of ASD would be generally stable over time, if not improved (Matson & Nebel-

Schwalm, 2007). Therefore, it may be beneficial to determine responsiveness to treatment in an attempt to reduce the negative impact psychopathology can have on the child and their family, especially as they go through potentially stressful or life-changing events. Regardless of the underlying sources, it is evident that children and adolescents with ASD experience higher levels of psychopathology than the general population, which may warrant specific intervention aside from more behavioural or skill-focused interventions they typically receive in early intervention. Despite this, there are few mental health interventions targeted specifically to individuals with ASD (Salomone et al., 2014; Wong et al., 2014) and individuals with ASD generally have poor access to mental health services because of their perceived complex needs (Salomone et al., 2014), especially children (McConachie, Hoole, & Le Couteur, 2011). Therefore, since children and youth with ASD are at high risk for mental health challenges, monitoring their emotional and behavioural functioning over time is advantageous.

Methods used for Evaluating Psychopathology in ASD. To review the assessment tools that have been used to examine comorbidities in children with ASD, the PsychInfo database was used with the identifiers of "autism", "psycho*", and "comobidit*" for the "childhood" age group of birth to 12 years. Initially, 72 articles were found, but only nine met review criteria. The criteria used for the present review included articles published in peer-reviewed journals, within the past 15 years (since 2000), who used a broadband assessment tool to evaluate psychological functioning in children with ASD, and described the methodology and findings. Also, additional articles that were mentioned in these nine articles were included in the review. In total, 19 articles were included in the review. A summary of the studies can be found in Table 6.

Table 6

Review of Articles Related to Psychological Comorbidities in ASD

	Purpose/Research Questions	Participants	Methodology	Conclusions
Gjevik, Sandstad, Andreassen, Myhre, & Sponheim (2015)	1) Does the CBCL correlate with DSM-IV-based Kiddie-SADS interview in identifying comorbid psychiatric symptoms for children and youth with ASD?	55 children and adolescents, aged 6-19 years, with ASD	Quantitative: • Kiddie-Schedule for Affective Disorders and Schizophrenia for School-Age Children (Kiddie-SADS) • Child Behavior Checklist (CBCL)	• High rate of psychopathology on both measures • Good agreement between the two measures for ADHD, depressive disorders, and oppositional defiant disorder • Overall specificity of CBCL low and not useful for identifying anxiety disorders
Gotham, Brunwasser, & Lord (2015)	1) How do anxiety and depressive symptoms change over time? 2) Are differences in patterns of change of anxiety and depression symptoms related to diagnosis, IQ, gender, and maternal education?	165 children and young adults aged 6-24 (109 with ASD, 56 with a developmental disorder-non ASD)	Quantitative: • Child Behavior Checklist (CBCL) • Adult Behavior Checklist (ABCL) • Developmental Behavior Checklist	• ASD at risk for affect and anxiety difficulties • Symptoms in females increased at a faster rate through adolescence • Males had elevated depression in school and into adulthood
Holtmann, Bölte, & Poustka (2007)	1) What are the sex differences of 'clinical phenotypes' identified by the CBCL for high-functioning youth with ASD?	23 female and 23 males with ASD, mean age of 11 years 9 months	Quantitative: • Child Behavior Checklist (CBCL)	• Significantly more symptoms in females than males, especially with social problems, attention problems, and thought problems
Hurtig, Kuusikko, Mattila, Haapsamo, Ebeling, Jussila, et al. (2009)	1) Study psychiatric symptoms of multi-informant reports of psychiatric symptoms 2) Determine agreement between reports	43 adolescents with Aspergers or high functioning autism (HFA) aged 11-17 and 217 typically developing, their parents, and teachers	Quantitative: • Child Behavior Checklist (CBCL)	• More psychiatric symptoms for AS/HFA for withdrawal, anxious/depressed, social and attention problems
Joshi, Petty, Wozniak, Henin, Fried, Galdo, et al., (2010)	1) What is the prevalence of ASD and scope of psychiatric comorbidity?	2,323 clinic-referred participants, 217 with ASD	Quantitative: • Schedule for Affective Disorders and Schizophrenia for School-Age Children (K-SADS-E)	• ASD had significantly more comorbidities • 95% of ASD had three or more comorbid disorders and 74% had five or more • ASD greater impairment on functioning and required support

Kim, Szatmari, Bryson, Streiner, & Wilson (2000)	1) Do high-functioning children have more anxiety and depression? 2) What is impact of these problems on adaptation? 3) Do children with AS have more problems than ASD? 4) Are cognitive skills and autism symptoms risk factors for anxiety and mood problems?	40 children aged 9-14 year with autism and 19 with Asperger's, compared with a sample of 1751 community children	Quantitative: • Ontario Child Health Study (OCHS-R), a revised version of the Child Behavior Checklist (CBCL) • Additional questions related to adaptation and behaviour	• AS and ASD had greater levels of anxiety and depression, which impacted adaptation • No difference in anxiety or mood problems between AS and ASD • Number of psychiatric problems not correlated with autistic symptoms, but predicted by verbal/non-verbal IQ discrepancy scores
Konst & Matson (2014)	1) What are the prevalent comorbid symptoms, rates of occurrence, and how these symptoms manifest in ASD?	205 infants between 17-37 months in a screening program for developmental delays (divided into ASD (67) and atypically developing group (138)	Quantitative: • Baby and Infant Screen for Children with aUtism Traits-Part 2 (BISCUIT- Part 2)	• More psychopathology in ASD compared to atypically developing peers
Kuusikko, Pollock-Wurman, Jussila, Carter, Mattila, Ebeling, et al. (2008)	1) Do social anxiety symptoms in ASD differ from non-clinical controls based on self-report and parental ratings of internalizing symptoms? 2) Does social anxiety and internalizing symptoms differ by age? 3) How do parent and child report of anxiety symptoms differ?	54 with Asperger's or HFA and 305 community participants	Quantitative: • Social Phobia & Anxiety Inventory for Children (SPAI-C) • Social Anxiety Scale for Children-Revised (SASC-R) • Child Behavior Checklist (CBCL)	• HFA and AS scored higher than community sample on all measures • Behavioural avoidance and evaluative social anxiety increased as the HFA and AS aged
Leyfer, Folstein, Bacalman, Davis, Dinh, Morgan, et al. (2006)	1) Is the ACI-PL an accurate, reliable instrument for diagnosing comorbid psychopathology in children and youth with ASD?	109 children, aged 5-17, with ASD	Quantitative: • Modified Kiddie Schedule for Affective Disorders & Schizophrenia (KSADS), which they called the Autism Comorbidity Interview- Parent & Lifetime Version (ACI-PL)	• High prevalence of specific phobia, obsessive compulsive disorder, and attention deficit hyperactivity disorder • Preliminary testing of psychometric properties of the depression, ADHD, and OCD sections of instrument showed good reliability and validity. • High rate of psychiatric disorders, resulting in impaired functioning

Matson, Hess, & Boisjoli (2010)	1) Do symptoms of comorbid disorders in ASD differ from those found in the typically developing population?	324 participants with autism, PDD-NOS, and a typical control group	Quantitative: • Baby and Infant Screen for Children with Autism Traits- Part 2 (BISCUIT- Part 2)	• Autism group highest scores on all subscales • PDD-NOS significantly more than control group • Significant difference between all three groups
Mazzone, Postorino, De Peppo, Fatta, Lucarelli, et al. (2013)	1) What is the prevalence of mood disorders in youth with ASD in contrast to typically developing and depressive youth? 2) Are the depressive features found in ASD particular to that group?	30 males with Asperger's or HFA, 30 males with major depression, 35 typically developing children	Quantitative: • Children's Depression Inventory (CDI) • Children's Depression Rating Scale (CDRS) • Child Behavior Checklist (CBCL) • Parent-Young Mania Rating Scale (P-YMRS) • Children's Global Assessment Scale (CGAS) • Multidimensional Anxiety Scale for Children (MASC)	• AS/HFA higher depressive symptoms on CDI total, CBCL internalizing, and CDRS-R total score • Higher level of depression symptoms increased risk of poor global functioning
Midouhas, Yogaratnam, Flouri, & Charman (2013)	1) Is family poverty associated with psychopathology trajectories? 2) Does home organization or/and maternal warmth and involvement buffer effect of poverty on psychopathology?	209 children with ASD ages 3-7	Quantitative: • Strengths and Difficulties Questionnaire (SDQ)	• High rates of psychopathology over time • Poverty associated with emotional and conduct problems • Low warmth explained relationship between poverty and psychopathology, and predicted annual changes • Warmth associated with fewer conduct problems and less hyperactivity, and annual decrease in peer and conduct problems • Household chaos related to conduct problems • Maternal involvement related to peer problems
Salomone, Kutlu, Derbyshire, McCloy, Hastings, et al. (2014)	1) What are parent- and teacher-reported rates of emotional and behavioural problems in ASD and ID? 2) Are difficulties associated with age, gender, and verbal ability? 3) Are services used associated with difficulties?	615 school age children with ASD and ID in a specialist ASD school	Quantitative: • Strengths & Difficulties Questionnaire (SDQ) • Questions to parents and teachers	• High rates of parent and teacher reported problems • Teacher reported levels of hyperactivity higher in young children • Teacher reported levels of conduct problems and hyperactivity highest in verbal difficulties • Use of mental health services related to emotional and behaviour problems, but few had accessed these services in past 6 months

Shroeder, Weiss, & Bebko (2011)	1) What is the frequency and severity of social, emotional, and behavioural problems identified by the CBCL for children and youth with ASD?	15 children with Asperger's, aged 6-18 years	Quantitative: • Child Behavior Checklist (CBCL)	• Elevated scores on all CBCL scales • Social, thought, and attention problems, and anxiety and depressive symptoms particularly elevated
Simonoff, Pickles, Charman, Chandler, Loucas, & Baird (2008)	1) What is the prevalence of DSM-IV psychiatric disorders for children and youth with ASD? 2) Are child, family, and contextual risk factors for psychiatric disorders associated with ASD?	112 children with ASD aged 10 to 14 year	Quantitative: • Child & Adolescent Psychiatric Assessment (CAPA)	• 70% had at least one comorbid disorder • 41% had two or more comorbid disorders • Most common diagnoses were social anxiety disorder, attention-deficit hyperactivity disorder, and oppositional defiant disorder • 84% of those with additional diagnosis of ADHD had secondary diagnosis
Skokauskas & Gallagher (2012)	1) What are the patterns of comorbid psychiatric problems in ASD and mild intellectual disabilities and their parents, compared to a control group?	67 ASD with mean age of 12.73 and 67 control group with mean age of 11.85	Quantitative: • Child Behavior Checklist (CBCL)	• Majority of parents reported internalizing (47.8% clinical and 16.4% borderline) or externalizing problems (10.4% clinical, 20.9% borderline) • 44.7% of ASD group met criteria for attention-deficit hyperactivity disorder and 46.2% anxiety problems
Strang, Kenworthy, Daniolos, Case, Wills, Martin, & Wallace (2012)	1) What are the relations among age, IQ, autism symptoms, and parent-rated depression and anxiety symptoms for children and youth with ASD in contrast to a typical control?	95 children, 54 with ASD aged 6-12 with and 41 children aged 13-18 with IQ >70	Quantitative: • Child Behavior Checklist (CBCL)	• Elevated rates of depression (44% borderline or clinical)/anxiety symptoms (56% in borderline or clinical) • Did not find higher IQ or fewer ASD symptoms among those with elevated symptoms
Witwer & Lecavalier (2010)	1) Explore how language and IQ impact psychiatric symptoms in children with ASD 2) Explore validity of behavioural equivalents of internalizing and behaviour problems	61 children with ASD and significant emotional/behavioural problems	Quantitative: • Children's Interview for Psychiatric Symptoms- Parent Version (P-ChIPS) • Nisonger Child Behavior Rating Form (NCBRF)	• Children with IQ<70 fewer symptoms than • IQ<70 more likely to have subsyndromal generalized anxiety disorder • Nonverbal individuals more likely to be subsyndromal for oppositional defiant disorder

Zachor, Yang, Itzchak, Furniss, Pegg, Matson, et al. (2011)	Are there cultural differences in symptoms of comorbid psychopathology in children with ASD?	316 children with ASD aged 1-16 from South Korea (63), U.K. (34), Israel (42), and U.S. (177)	Quantitative: • Autism Spectrum Disorders-Comorbid for Children (ASD-CC)	• Few differences found between groups • U.S. significantly higher scores than South Korea on avoidant sub-scale • U.S. significantly higher than Israel on over-eating and tantrum subscales • No differences between U.S. and U.K.

The research reviewed provides evidence that children and youth with ASD experience considerably higher rates of psychopathology compared to typically developing peers, children and youth with other developmental disabilities, and normative samples, and these symptoms are related to impaired functioning and adaptation (e.g., Joshi et al., 2010; Kim et al., 2000; Leyfer et al., 2006; Mazzone et al., 2013). It has been suggested that it may be difficult to evaluate psychological functioning in children and youth with ASD because many symptoms may overlap with the nature of ASD itself due to complicating secondary disabilities, but in the present review, it was consistently recognized that the symptoms of comorbid psychological disorders were over and above those related to ASD diagnostic criteria. Also, these results were demonstrated across a wide range of assessment tools.

The research reviewed suggest that psychological assessment and intervention may be warranted for children with ASD, as these children are vulnerable to symptoms of psychopathology due to the nature of ASD (e.g., difficulties adapting to change in routine and social interaction with others). The review identified few assessment tools that have been developed and validated for children and youth with ASD specifically. Based on the current review, the most commonly used measure of psychological functioning in children and youth with ASD appears to be the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2000, 2001; Gjevik, Sandstad, Andreassen, Myhre, & Sponheim, 2015; Holtmann et al., 2007; Hurtig

et al., 2009; Kim et al., 2000; Kuusikko et al., 2008; Mazzone et al., 2013; Schroeder et al., 2011; Skokauskas & Gallagher, 2012; Strang et al., 2012). The CBCL has demonstrated sensitivity to symptoms and has good agreement with other measures of psychological functioning in ASD populations (Gjevik et al., 2015), but specificity has not been high for anxiety disorders (Gjevik et al., 2015; Gotham et al., 2015; Kim et al., 2000). Researchers have demonstrated that the CBCL's scales measure emotional and behavioural problems in ASD (Pandolfi, Magyar, & Dill, 2009; Pandolfi, Maygar, & Norris, 2014) and that the Total Problems score on the CBCL may be related to an ASD diagnosis (Pandolfi et al., 2014). Despite this, no tool appears to be ideal for use with ASD populations because none have been normed with ASD samples for this purpose.

To substantiate these review findings, Matson & Cervantes (2014) conducted a review of commonly studied psychopathologies in ASD. They found that the most used broadband measure of psychological functioning was the CBCL, but again, there was no consensus on what assessment tools were considered to be best practice. While frequency of use does not equate valid utility, other researchers have suggested that the CBCL is a valid tool to evaluate psychological functioning in ASD populations (e.g., Gjevik et al., 2015; Pandolfi et al., 2009; Pandolfi et al., 2014). Because there is no consensus on what assessment tools are best practice for assessing psychological functioning in ASD populations (Matson & Cervantes, 2014), according to the literature outlined by the current review, the CBCL is be the most valid and sensitive tool at this time.

Previous literature has found trends in symptom elevations on the CBCL for children and youth with ASD. In particular, on the broader Syndrome scales for pre-school aged children (ages 1.5-5), elevations on all subscales have been found (Pandolfi et al., 2009), particularly on the Withdrawal and Attention Problems scales (Giovagnoli et al., 2015; Hartley et al., 2008). On

the school-aged form (ages 6-18), elevations on the Thought Problems, Attention Problems, and Social Problems scales have been found on the Syndrome scales and elevations on the Obsessive-Compulsive Problems and Attention Deficit/Hyperactivity Problems have been found on the DSM-oriented scales (Hartini, Sunartini, Herini, & Takada, 2016; Mazefsky, Anderson, Conner, & Minshew, 2011; Pandolfi et al., 2012; Schroeder et al., 2011). Overall, on both the pre-school and school-aged forms, children and youth with ASD consistently demonstrate significant elevations on the Internalizing Problems scale (Giovagnoli et al., 2015; Hartley et al., 2008; Pandolfi et al., 2009; Hartini et al., 2016; Pandolfi et al., 2012; Schroeder et al., 2011, which suggests that they struggle to regulate their emotions.

Intervention and Education of Children with ASD

Although there are a multitude of intervention protocols for ASD, best outcomes appear to be related to accessing intervention at a young age, receiving intensive treatment (20 to 40 hours per week for one to three years), having an individualized, structured, and developmentally appropriate treatment protocol, access to highly trained staff, and incorporation of behavioural strategies (Perry, 2002; Perry & Condillac, 2003; Perry et al., 2008; Schreibman, 2000; The National Autism Center, 2015; Wong et al., 2014). More recently, there is a trend towards naturalistic approaches due to some of the weaknesses and criticisms of intensive and structured interventions (Schreibman et al., 2015). A goal that is actively addressed in early intervention is *generalization*; that is, for children with ASD to be able to generalize the skills they have learned in early intervention to the real world. One context that demands the generalization of skills learned is the school system. Because individuals with ASD often have difficulty adjusting to stress or adversity, especially when their environment is unpredictable or if there is a change in

routine (McConachie, Hoole, & Le Couteur, 2011), it is assumed that children struggle with the transition from early intervention into school.

Early intervention seeks, in part, to ease the transition to school and thus improve outcomes for children and families. Specific practices that facilitate successful transitions are beginning to be examined in the literature, but there is a dearth of research pertaining to the outcome of these transitions, particularly related to child adaptation (Rous & Hallam, 2012), as well as how various transition activities and contextual influences support or hinder adaptation. Understanding the process and outcomes of transition is important because there is a relationship between successful school adaptation and cognitive, academic, and social functioning (Rous & Hallam, 2012). However, transition to school is a complex phenomenon. If we want to improve the transition process and subsequent outcomes, we must seek to better understand the phenomenon in multiple ways. One such way would be to understand the emotional and behavioural challenges associated with the transition to school.

School challenges. Children and adolescents with ASD are increasingly being educated in inclusive classrooms with typically developing peers (Boyd & Shaw, 2010), especially in Canada (Bryson et al., 2010). Because of this, educators and school staff should ideally be able to predict how a student with ASD will present in a classroom to determine what kind and what level of support they will require. "It is generally accepted that students with ASD require additional support to help them cope with the day-to-day changes within classroom and school environments" (Hannah & Topping, 2012, p. 199). The need for educational support will depend on the student's level of functioning (Volker, 2012), but this can be complicated by their behaviour and emotions (The National Autism Center, 2011). While there can be variability in presentation of symptoms, especially with the presence of secondary difficulties (e.g., comorbid

psychological disorders), educators and school staff can generally expect to see patterns in their difficulties at school due to the nature of ASD itself.

Students with ASD might be able to generally function in a classroom, but they will be vulnerable to being negatively affected by stress, which is a reality at school, and this can severely impact their ability to cope (McConachie et al., 2011). At school, situations can frequently stray from a normal routine and students have to be able to adapt to unpredictability and new environments or people. Also, students with ASD might become overstimulated by classroom characteristics (Connor, 1999), as a classroom can be loud and distracting at times. Because students with ASD have a tendency to be rigid (Boyd & Shaw, 2010), especially about routines (The National Autism Center, 2011), and have difficulty adapting to change or adversity, they will likely struggle when these situations ensue, which could cause maladaptation (McConachie et al., 2011; The National Autism Center, 2011). Students with ASD may also become frustrated and act-out in class, resulting in self-injurious or aggressive behaviours (The National Autism Center, 2011). This higher frequency of problem behaviours (Volker, 2012) may result in students being misinterpreted as non-compliant (Connor, 1999), when in fact the behaviours are characteristic of their diagnosis.

Core to the ASD diagnosis is difficulty interacting with others. This is a skill that is necessary at school because education is typically provided in a group setting; students have little choice but to interact with the teacher and other students to be successful. Students with ASD will expectedly have difficulty interacting with others, especially when communicating (McConachie et al., 2011; The National Autism Center, 2011), which may result in them being socially isolated or excluded by their peers (The National Autism Center, 2011; Volker, 2012). These deficits would also impact their ability to understand curricular material and instructions

(The National Autism Center, 2011), and their ability to problem-solve (McConachie et al., 2011), all of which would impact academic achievement. All of the above difficulties that students with ASD may experience at school can be compounded by comorbid psychopathology (Boyd & Shaw, 2010).

To be successful in the classroom, it has been recommended that students with ASD attain certain prerequisite skills (Hundert, 2009). For example, students with ASD are more likely to be successful if they are able to participate and learn individually and in a group environment, remain on task, participate actively (e.g., raise hand to answer question or answering questions without a prompt), initiate and maintain social interactions with peers, communicate their needs, follow routines, self-regulate, consider other's needs and perspectives, and have an overall low rate of problem behaviours (Hundert, 2009). While many of these skills are targeted in early intervention, students with ASD are still more likely to access special or additional supports at school (Kasari, Freeman, Bauminger, & Alkin, 1999; Parsons, Lewis, & Ellins, 2009). Further, because of the high rate of comorbid symptoms of psychopathology (such as attention deficits, anxiety, depression, and oppositional behaviours), it is that much more likely that a child will have difficulty adjusting to a school environment. Therefore, educators and school staff need to know how to best meet the needs of students with ASD in the classroom, which could be facilitated by ensuring they get training about ASD, behaviour management strategies, and evidence-based interventions that can be used in the classroom (Bryson et al., 2010).

Evidently, it is important for the needs of students with ASD to be met in educational settings for inclusion to be successful. This requires a great deal of planning and organization to ensure the school is capable of meeting the needs of the child. For instance, school staff should

have a thorough understanding of the nature of ASD and this may require further training

(Mesibov & Shea, 1996). School staff should also facilitate open communication with parents

because they may require more information about how the school can meet their child's

educational needs (Falkmer, Anderson, Joosten, Falkmer, 2015; Parsons et al., 2009). For

children with ASD, these supports and services should be implemented as soon as possible,

before the child starts school however, what complicates matters further is the complexity of the

transition out of early intervention into the school system.

      Impact of the transition to school. The transition out of early intervention and into

school can be particularly difficult because of the differences between the two settings and the

nature of ASD itself. Early intervention and the education system tend to have different

philosophical perspectives or philosophies (e.g., family centered vs. child- or family-centered;

daily living or specific deficit focus vs. academic curriculum), policies and procedures,

variability in program delivery, level of funding and support, value of family involvement,

quality of the program, and location (Fox, Dunlap, & Cushing, 2002; Janus et al., 2007; Rous,

Hallam, Harbin, McCormick, & Jung, 2007). Therefore, moving from early intervention to

school may result in drastic changes or interruptions to support and additional services (Fox et

al., 2002). Furthermore, these children will be attending a setting that is potentially new to them,

which requires them to navigate it without the consistent support of their prior intervention staff

or their parents, whom with they are likely most familiar with. Children with ASD may also

experience greater difficulties at school because of social skill and communication deficits

(Forest, Horner, Lewis-Palmer, & Todd, 2004). There is certainly a relationship between

successful school adjustment and cognitive abilities, adaptive skills, and social functioning (Rous

& Hallam, 2012), and since the most desired outcome of the transition to school is successful

adjustment (Janus et al., 2007), this may leave students with ASD being vulnerable to long-term difficulties if they are not able to adapt to the school environment.

The transition to school may also be difficult for children with ASD because the transition can be potentially stressful (Denkyriah & Agbeke, 2010), but there is limited research focused on emotional and behavioural changes during transitions. Hannah and Topping (2012) examined changes in anxiety symptoms for a small sample of males with Asperger's syndrome as they transitioned from mainstream primary to secondary school. The authors found that pre-transition, five of the eight students had substantial scores on one subscale of the anxiety measure compared to standardized norms, but there was little consistency across all students in the sample and across all four subscales. Furthermore, from pre-transition to approximately seven to nine months post-transition, some student's anxiety levels increased on certain scales, while others decreased. The authors concluded that there are individual differences in how students with ASD experience symptoms of anxiety during the transition to school and that intervention or supports may be required during times of transition.

Early intervention seeks, in part, to ease the transition to school and thus improve outcomes for children and families. Specific practices that facilitate successful transitions are beginning to be examined in the literature (e.g., Levy & Perry, 2008), but there is a dearth of research pertaining to the outcome of these transitions, particularly related to child adaptation (Rous & Hallam, 2012), as well as how various transition activities and contextual influences support or hinder adaptation. Furthermore, limited research has been conducted on the experiences of families of children with ASD during the transition to school (Stoner, Angell, House, & Bock, 2007), let alone the lived experience of Canadian families (Fontil & Petrakos, 2015). The transition to school is a complex phenomenon and if we want to improve the

transition process and subsequent outcomes, we must seek to better understand the phenomenon in an in-depth way.

Method

Research on transitions often use an ecological framework in acknowledgement of contextual factors (e.g., child or family characteristics, school and program factors) that play a role in the success of the transition (Rous & Hallam, 2012). Single-method research approaches are somewhat limited in this endeavour. For instance, quantitative measures are generally limited in their ability to capture rich contextual detail, while qualitative measures are less suited to measuring more discrete phenomena, such as how a child's level of functioning compares to typical children their age or other clinical groups. Yet, incorporation of both of these types of data is integral to better understanding a complex phenomenon, such as the transition from early intervention into school. Moreover, because the transition is individualized and unique to each child, it can be difficult to discern how experiences are similar. A case study method provides a framework under which quantitative and qualitative methodologies can be used to look at distinct cases or units to examine the complex contextual factors that underlie specific or more discrete issues in adaptation of children with ASD during the transition to school. With these methodological considerations in mind and given that there is a lack of clarity regarding how children with ASD experience the transition, the current study examines the parental experience of the transition process and their perspective of how their child's emotions and behaviours are impacted.

A multiple case study approach was used to explore the psychological functioning and adaptation of children with ASD as they transition from early intervention into the school system. According to Yin (2014), a case study approach is appropriate when the questions at the

core of a study are related to "how" or "why", the researcher has little or no control over the phenomenon being investigated, the focus of the study is contemporary and not entirely historical, and the goal is to acquire an in-depth description of the phenomenon. A case study uses many sources of evidence to triangulate conclusions and uses theory to guide how data is collected and analyzed (Yin, 2014). As such, this approach is appropriate for the current study as it aims to expand and enrich our understanding of not only the emotional and behavioural functioning of children with ASD during the transition to school, but also what key experiences may positively or negatively influence their adaptation. This study lends itself to a case study approach because each child with ASD is unique, along with the contexts and processes involved in each transition. Therefore, a case study approach allows for an in-depth look at each case individually, as opposed to assuming that all transition experiences and contexts are the same.

This multiple case study is exploratory in nature and thus, reported changes in functioning in each child's unique transition were treated as distinct units of analysis. Data collected in this study was focused on how children handled the transition according to their parent's perspective through two data sources: semi-structured interviews and a questionnaire. Each case illustrates the real-life experience of going through the transition from early intervention to school. Data collection and interpretation included changes in psychological functioning pre- to post-transition and themes that emerged from semi-structured interviews with parents post-transition. The benefit of using multiple data collection methods is that the questionnaires pre- and post-transition help to quantify any emotional or behavioural difficulties the children may have had and the interviews identify key transition activities and experiences that influenced changes in functioning. A cross-case interpretation was also used to draw generalized conclusions.

Purpose and Research Questions

The purpose of the current study was to explore the aspects of the transition that underlie changes in children with ASD's emotional and behavioural functioning when making the move from an early intervention program into school. The goal was to identify mitigating factors that support successful transitions. To do so, the current study used the following research questions to guide data collection and analysis:

1. How does the transition from early intervention into school impact the emotional and behavioural functioning of children with ASD?

2. How do parents of children with ASD describe the experience of going through the transition from early intervention into school with their child?

3. What are the benefits, challenges, and key transition experiences that influence the experience of transitioning a child with ASD from early intervention into school?

Because the transition from early intervention into school is unique for each child and context (Rous & Hallam, 2012), the researcher viewed the transition as an interaction between the child and the systems around them (e.g., transition practices used, who was involved, and policies and procedures). This ecological perspective posits that each transition is unique with distinctive interactions and processes and thus, the ecological framework sets up particular propositions for the current study. The ecological framework proposed by Rous et al. (2007) describes various systemic factors that impact children as they transition from early intervention into school. For instance, the ecological framework posits that there are individual factors (e.g., pre-transition emotional and behavioural functioning), service provider or school factors (e.g., transition practices used), and provincial factors (e.g., policies and procedures outlined by the provincial government) that influence the success of transitioning to school. Therefore, it is

assumed that not only would a child's functioning be impacted by the transition, as the transition is known to be stressful for children and families, and because children with ASD are also known to have high levels of symptoms of psychopathology (e.g., Leyfer et al., 2006 and Simonoff et al., 2008), but because certain transition practices will help to mitigate their impact and support the success of the transition. To investigate these propositions, the logic linking the data to these propositions is to utilize the parent experience of going through the transition with their child. Parents tend to have in-depth knowledge of their child and a first-hand experience with the transition and the particular details involved in the transition process. Therefore, unlike anyone else who is involved in the transition of a particular child, a parent is better able to provide valuable first-hand information related to these propositions.

Participants

Participants in this study were invited to participate through direct communication with their early intervention service providers, through advertisements on service provider or advocacy group webpages or newsletters, and on social media platforms. Participants included parents of children aged 4 to 6 years who at the time of recruitment: 1) had a confirmed and documented diagnosis of ASD; 2) were participating in an early intervention program; and 3) were preparing to end early intervention support and attend school full-time. Participants were chosen from a sample of parents who participated in study 1 (*N*=11). In total, five parents from Alberta, Canada participated in the study and all children were between the ages of four and six years. Selection of individual cases was based on convenience in that these were the parents who completed all requirements of the study (i.e., questionnaires pre- and post-transition, and semi-structured interview). These cases are representative of parents who participated in the transition in the province of Alberta and it is evident that they brought forward diverse characteristics and

contexts. Ultimately, these cases allow for a deeper and richer understanding of the complexity of the transition to school (Yin, 2014). A thorough description of each case can be found in the results section.

Data Collection and Analysis

This multiple case study utilizes not only multiple sources of data, but also various methods. Quantitative data from a parent-report measure of their child's psychological functioning was collected and analyzed at two time points to document norm-referenced changes in functioning prior to the transition to school (time 1) and immediately after the transition to school (time 2). Then, qualitative data from parent interviews was gathered and analyzed for each case to better understand any reported changes in functioning. Thus, the quantitative data and results provide a general description of the intra-individual changes that occur for children during the transition to school and the qualitative data contextualizes these changes and provides a richer understanding of the context and experiences underlying these changes. The data from all sources were integrated to help elaborate, explain, and enrich the exploration of the transition to school and to support data triangulation.

Quantitative measures and procedure. The Child Behavior Checklist- Preschool edition (CBCL-Preschool; Achenbach & Rescorla, 2000) and the CBCL- School-Age (CBCL-School-Age; Achenbach & Rescorla, 2001) were used to assess psychological functioning and aspects of adaptive functioning. The CBCL- Preschool edition is a 99-item parent-report questionnaire appropriate for use with children ages 1.5 to 5 years), while the CBCL- School-Age is a 117-item parent-report questionnaire appropriate for use with children aged 6 to 18 years. The questionnaire takes approximately 15 minutes to complete. Parents rate their child's behaviour (generally sampled from the past 6-months, unless directed otherwise) on a three-point

scale (0 = not true, 1 = somewhat or sometimes true, 2 = very true or often true). The CBCL-School-Age yields scores in three broad areas (Summary Scales), which subsume more specific subscales: Internalizing Problems (Withdrawn, Somatic Complaints, Anxious/Depressed subscales), Externalizing Problems (Aggressive Behavior and Delinquent Behavior subscales), and Total Problems. Syndrome scales on the CBCL- Preschool include Emotionally Reactive, Anxious/Depressed, Somatic Complaints, Withdrawn, Sleep Problems, Attention Problems, and Aggressive Behavior, whereas the CBCL- School-Age's Syndrome scales include Anxious/Depressed, Withdrawn/Depressed, Somatic Complaints, Social Problems, Thought Problems, Attention Problems, Rule-Breaking Behavior, and Aggressive Behaviour. Therefore, while the Summary Scales are comparable between the two forms (i.e., Internalizing, Externalizing, and Total Problems), the Syndrome Scales measure similar, but not identical constructs. The CBCL- Preschool and the CBCL School-Age also include subscales related to the Diagnostic and Statistical Manual of Mental Disorders (DSM). Norm-referenced and age-corrected T-scores are provided, with a normative mean of 50 and a standard deviation of 10. Higher T-scores represent more problematic behaviour. For instance, on the Syndrome and DSM-oriented scales, T-scores ranging from 67-69 are considered to be in the borderline clinical range and scores at or above 70 are considered to be in the clinically significant range. For the Summary scales (i.e., Internalizing, Externalizing, and Total Problems scales), T-scores ranging from 60-63 are in the borderline clinical range and scores at or above 64 are clinically significant.

The CBCL-Preschool and the CBCL School-Age have demonstrated strong psychometric properties (Achenbach & Rescorla, 2000, 2001). Test-retest reliability is strong in normative samples, with alpha coefficients ranging from .95 to 1.00 for individual items and from .91 to .95

for summary scales. The CBCL is recommended for use in re-assessment and treatment monitoring, with a minimum of one month between administrations to mitigate possible test-retest attenuation effects. Inter-rater reliability coefficients range from .69 to .73 for parents, which is comparable or superior to other similar behavioural rating scales. Internal consistency is also adequate, with alpha coefficients ranging from .63 to .79. According to the CBCL manuals, criterion-related validity is strongly supported by four decades of research and the ability of all items to discriminate significantly (p<.01) between neurotypical and clinical groups. Construct validity is supported by significant correlations with similar assessment tools (e.g., Behavior Assessment Scale for Children [BASC]) and with DSM criteria, by cross-cultural, genetic, and biochemical research, and through accurate predictions of long-term outcomes.

The CBCL has been used extensively in a variety of clinical populations, including children with ASD (for a review, see Schroeder et al., 2011), and can be sensitive to change between administrations with a time frame as little as 2 months (Achenbach & Rescorla, 2001), which makes it an ideal tool for monitoring changes in psychological functioning over shorter periods of time. Within groups of children with ASD, the CBCL has been used to document levels of psychopathology (i.e., psychiatric comorbidities) and emotional, behavioural, and social functioning over time (Anderson, Maye, & Lorde, 2011; Matson & Cervantes, 2014; Stahmer, Akshoomoff, & Cunningham, 2011). The CBCL has been found to be a useful tool in differentiating children with an ASD diagnosis from typically developing children, as well as from children with other psychological diagnoses (Biederman et al., 2010).

Participants were also asked to complete a demographic questionnaire with questions related to the current age of their child, age at diagnosis, time child spent in early intervention, diagnosed comorbid disorders, other interventions or supports accessed, and family

characteristics (e.g., siblings). This information is important to understanding each case. In addition, reporting demographic information is useful to future consumers of the research in determining applicability of the results to their own context.

Participants were asked to fill out the CBCL-Preschool or the CBCL School-Age (depending on the child's age) prior to starting school while still in early intervention (time 1) and again within 12 weeks of starting school full-time (time 2). Once participants completed a consent form online, they were emailed a link to complete the demographic questionnaire and the CBCL online. Follow-up phone calls to participants occurred to inform parents that the email had been sent and to respond to any further questions. At the conclusion of the study, parents were sent a summary of their child's specific results on the CBCL, which they might find helpful in planning for future transitions. Responses from the CBCL were directly entered into the scoring software program and any profile flagged as 'invalid' was reviewed by the primary investigator, who ultimately deemed it valid or invalid. All profiles were deemed valid for interpretation. Data collected from the demographic questionnaire were used primarily to describe the sample.

The completion of the CBCL pre- and post-transition allowed for an evaluation of changes that may have occurred during the transition period. The reliable change index (RCI) was calculated for each Syndrome, Summary, and DSM-oriented scale from pre- to post-transition. This process has been used in previous studies when examining significant change in scores for individual participants (e.g., Bagner, Sheinkopf, Vohr, & Lester, 2010; Chase & Eyberg, 2008; Manteuffel, Stephens, & Santiago, 2002). The RCI is a standardized score representing the change in a person's score on a test, calculated by dividing the change in the person's score by the standard error of the difference for the test in question (Jacobson & Truax,

1991; Maasen, 2004). If the RCI is 1.96 or greater, the difference is considered statistically significant (1.96 equates the 95% confidence interval); if the RCI is less than 1.96, the difference is not significant. In other words, the difference between the first and second score has to be at least twice (or, more accurately, 1.96 times) the standard error of the difference to be considered a significant change, either positively or negatively. The scales that were found to demonstrate significant reliable change from pre- to post-transition are reported for each child.

Qualitative measure and procedure. A semi-structured interview was conducted with parents within the first four to eight weeks of their child starting school and after they had completed the CBCL post-transition. All interviews took place over the phone and lasted between approximately 30 minutes to just over an hour. To ensure credibility, interviews were digitally recorded and transcribed verbatim. Based on previous literature regarding the educational transitions of children both with and without disabilities, as well as research-identified ideal transition activities (e.g., Levy & Perry, 2008), the primary investigator developed an interview protocol of 16 open-ended questions with follow-up prompts, if required. The questions covered topics such as preparation for the transition, key activities completed during the transition, and actual transition experiences. For every recommended transition practice, participants were asked how they felt it impacted their child. For example, previous research has suggested that family involvement is an ideal transition practice, so a question was, "In what way did family involvement in the transition process have an impact on your child's ability to adapt to their new setting?" A copy of the interview protocol can be found in Appendix A.

The current study used a basic qualitative approach (Merriam, 2002; Merriam, 2009; Merriam & Tisdell, 2016) to better understand the experience and perspective of parents who

had gone through the transition with their child. Ideas and comments from all interviews were transformed into more specific themes using a basic thematic analysis (Braun & Clarke, 2006) to uncover patterns and themes in an interpretation of how parents made sense of their transition experience. "A theme captures something important about the data in relation to the research question and represents some level of patterned response or meaning within the data set" (p. 82), which can help to tell a story about the participants' experiences (Braun & Clarke, 2006). Similar to the procedure outlined by Braun and Clarke (2006), the primary investigator first familiarized herself with the data by transcribing all responses and organizing them by question. Examining the entire set of responses helped to create primary codes and then themes were created from these codes. Notes and comments were made in the margins of the document and exemplary phrases were identified. The themes were reviewed, organized into a table, and subsequently named and defined.

An audit trail was kept to keep track of thoughts and comments about the content of the interview, the method used for determining codes, criteria for themes, and exemplary quotes for each theme. Participant quotations were important to include in the process, as they helped to ensure the accuracy in interpretation of the themes. Prior to the final dissemination of the study and publication of results, a member-check (Bazeley, 2013) was conducted with participants. As such, participants were given the opportunity to review the results of the interviews to ensure they were an accurate and valid representation of their perspective of the transition process and all participants agreed to the accuracy.

Case Study Analysis Plan

Prior to the analysis and interpretation of results, a case study database was created to organize and store all data collected. This database was organized by child; demographic

information was described, scores from the CBCL questionnaires and significant RCI scores were noted, themes from the semi-structured interviews were identified and defined, and any notes or researcher thoughts were added. Micro-tables for each case were created for a visual examination of the themes within-case and larger tables were then used to complete a cross-case analysis to find themes that were common or in direct discrepancy amongst the cases.

The analysis began with a thorough description of each case or unit. Data was worked from the ground up (Yin, 2014), meaning that the cases are first described individually and all supporting data or evidence are provided. The supporting data and evidence were categorized based on the research questions. Then, categories and relevant evidence for each category was organized in a matrix per case to allow for pattern matching. Although inferences can be drawn from just one data source, meta-inferences were drawn from the cross-case analysis, which includes a larger and more generalizable interpretation. A cross-case analysis has been recommended to strengthen construct validity (Yin, 2014). The data from all five cases were compared and contrasted, and common threads were merged into individual themes. Pattern matching was also used to compare what was predicted (i.e., comparison to ecological framework and propositions) with what was actually found in each case. For instance, since a proposition was that the children's functioning will change post-transition, the extent to which that occurred was explored per case and an explanation was built with any rival explanations considered.

Results

The following section is divided into two sections. In the first section, each case is thoroughly described and all data pertaining to that case, including results from the pre- and post-CBCL, RCI scores, and interview responses are presented. In the second section, to explore the

commonalities amongst the cases, a cross-case analysis is presented. A summary of the main

characteristics each case can be found in Table 7.

Table 7

Characteristics of Each Case

	Emmett	Connor	Magnus	Alex	Declan
Age	4	5	5	6	6
Sex	Male	Male	Male	Male	Male
Diagnosis	ASD	ASD	ASD	ASD	ASD, OCD, ADHD, GAD, Dyspraxia
Problem behaviours	None reported	None reported	None reported	Hitting and throwing objects when angry	Aggression
Language skills	Delayed expressive language	Delays in pragmatic communication	Delays in pragmatic communication	Severe delays, uses visuals to communicate needs	Severe receptive and moderate expressive language delays
Early intervention program	Interventionist, early education preschool, and attended play groups	Parent training, early education preschool, after-school program, and private speech and language therapy	Early education preschool, child care centre, and an interventionist	Interventionist, parent training, early education preschool	Parent training, programs like Triple P Parenting and Incredible Years
School placement	Inclusive French immersion	Full inclusion with 1-to-1 aide for 5 half days/week	Full inclusion with 1-to-1 aide in mornings and shared in afternoons	Program for children with ASD, with opportunity for inclusion during activities	Inclusive double classroom with two teachers

Case 1: Emmett (age 4), mother Jennifer

At the time of the assessment and interview, Emmett was 4 years old and had two

siblings (ages 3 and 6 years). Emmett's mother Jennifer was married and working as a nurse.

Jennifer described Emmett as a happy, social, and humorous boy who enjoyed plotting and

problem-solving. Emmett was diagnosed with ASD, presented with delays in expressive language and used assistive technology to augment his communication, and no problem behaviours were reported. In terms of early intervention, Emmett participated in therapy with an interventionist (approximately 4-6 hours/week), had funding to attend an early education preschool with an aide, speech and language pathologist, and occupational therapist support (4 days/week), and he attended playgroups. At the time of the study, Emmett was entering school full-time into an inclusive French immersion kindergarten classroom.

CBCL results. When comparing Emmett's pre-transition to post-transition scores, according to his mother Jennifer, he demonstrated increased symptoms on the Internalizing and Anxiety Problems subscales (borderline range). Also, Emmett continued to demonstrate an elevation on the Somatic Complaints scale (borderline range) post-transition. When looking at the RCI scores, two scales were found to demonstrate statistically significant change pre- to post-transition (i.e., RCI score greater than or equal to 1.96). Emmett's RCI score on the Sleep Problems scale was 2.08 and his score on the Anxiety Problems subscale was 2.09, which suggests that he reliably experienced an increase in sleep difficulties and symptoms related to anxiety post-transition. A summary of Emmett's scores can be found in Table 8.

Table 8

Emmett's Scores on the CBCL Questionnaire

Subscales	Pre- T-score	Post- T-score	RCI
Emotionally Reactive	50	55	1.79
Anxious/Depressed	51	52	0.54
Somatic Complaints	68*	65*	-0.93
Withdrawn	56	60	0.93
Sleep Problems	59	64	2.08***
Attention Problems	51	50	-0.79
Aggressive Behavior	50	50	0.92
Internalizing Problems	56	60*	1.06
Externalizing Problems	40	43	0.50
Total Problems	52	54	0.59
Depressive Problems	56	56	0
Anxiety Problems	57	67*	2.09***
Autism Spectrum Problems	54	61	1.57
Attention Deficit/Hyperactivity Problems	50	50	0
Oppositional Defiant Problems	50	50	-0.75

Note. * borderline range. ** clinical range. *** statistically significant RCI score.

Interview summary. To better understand reported changes in functioning, a semi-structured interview was conducted with Jennifer post-transition. Jennifer reported that since starting school, Emmett appeared to be more tired and "moody" when he got home and after the first few days of the week, he didn't want to go to school anymore. Jennifer suspected that Emmett might be feeling tired or worn out after school. Despite this, Jennifer felt that Emmett was adjusting as well as he could. She explained that "he is doing as well as [she] expected him to do. He [was] not having meltdowns in class. [She was] not getting phone calls to pick him up, so he [was] participating and he [was] doing all those things". Jennifer also discussed Emmett's specific challenges and how they negatively impacted him at school. For example, she discussed how he often wonders off when others aren't watching and because of his speech delays, they think he is "not smart" and underestimate his ability to escape.

According to Jennifer, what helped Emmett with the transition was that she was highly involved in the transition. Jennifer explained that she felt included and heard by the professionals from early intervention and school who were involved in the transition, especially when discussing her expectations regarding use of Emmett's assistive technology in the classroom. Despite this, most communication was parent initiated, as Jennifer felt that she had to advocate for Emmett;

> I was pretty proactive. I was the one that went to the school to initiate the meeting and I made sure that there was a meeting between the old school and the new school. I wanted the new staff to be there…I am pretty vocal about what I want for my child, so I made sure that they knew what I wanted.

By facilitating this communication, Jennifer ensured that there was cohesion of supports by having the early intervention staff meet with his new teacher. Consequently, Emmett's teacher reportedly had a good understanding of Emmett's needs. Jennifer explained,

> She had already gone above and beyond…she had gone and set up sensory areas for him in the classroom and really tailored the classroom to him. Like he likes to spin so she bought a spinning chair for him. She set up like a little reading corner with curtains that could close. She bought big pillows he could crash into.

Jennifer also spent time preparing Emmett for the transition by increasing his familiarity with the school. She brought Emmett to visit his new classroom ahead of time and taught him school readiness skills, such as how to hold a pencil.

With regard to what might have affected Emmett in the transition, Jennifer reported that there was a lack of collaboration between the early intervention and school settings, but she felt supported by the speech and language pathologist and occupational therapist from the early

intervention program. Jennifer also explained how the timing of transition planning was not ideal. While Jennifer started personally planning for the transition in December the year before and met with early intervention and school staff in June to do more formal planning, she would have preferred another meeting in September right before he started school. Jennifer said, "It's hard, like the last day of school, telling them about my son and then we get to September and it's been two months and they haven't seen him and they haven't or don't probably remember what was discussed".

Jennifer reported that she had concerns about Emmett's success at school and how he might adjust, especially with added difficulties related to being in a French immersion placement. Jennifer stated, "You don't know what to do is best and same with putting him in a French immersion program as opposed to English. There was a lot of struggle…". She also reported concerns with delayed access to support services at school. At the time of the interview, Emmett had yet to see the speech and language pathologist or occupational therapist because they were "spread too thin", which was not the case in early intervention. Her fear was that she might regret not keeping Emmett in preschool longer because he ultimately loses out on services at school.

Summary. Pre- to post-transition, Emmett demonstrated increased symptoms on the Internalizing Problems and Anxiety Problems subscales, and continued to have Somatic Complaints. Based on the RCI scores, Emmett's increased Sleep and Anxiety Problems reliably increased post-transition. Upon interview, Jennifer did not discuss Emmett's sleep difficulties, but mentioned that he seemed more tired and "moody" since the transition. Even though Emmett experienced some difficulties, Jennifer felt that he handled it as well as expected. Jennifer explained that she had concerns about his success and adjustment and did not want to regret

putting him in school. What helped Emmett through the transition was Jennifer's high involvement and communication with the professionals involved, which was mostly parent initiated. Emmett benefited from being taught school readiness skills and becoming more familiar with the school environment. Challenges included the lack of collaboration between early intervention and school and the timing of transition planning.

Case 2: Connor (age 5), mother Caitlin

At the time of the assessment and interview, Connor was 5 years old and had one younger sibling. Connor's mother Caitlin was married and working as an occupational therapist. Caitlin described Connor as a humourous and high energy kid who easily drew others in, a good reader, and that he had an excellent memory for books and TV shows. Connor was diagnosed with ASD and had no reported problem behaviours. Connor reportedly exhibited delays in language; he would perform "fine" during testing, but had difficulties functionally communicating with others. In terms of his early intervention program, his mother received parent training (approximately 2 hours/week) and he participated in an early education preschool classroom with other children with developmental delays (approximately 12 hours/week). Connor's early education preschool classroom comprised of 12 students, 1 teacher, and 3 aides, and they worked on goals such as engagement in activities, self-regulation, independence in daily routines, sequencing, language and social interaction skills, and reducing his "scripting". Connor participated in an after-school program and private speech and language therapy. At the time of the study, Connor was entering school full-time into a fully inclusive classroom for 5 half days a week, with 1-to-1 aide support.

CBCL results. According to Caitlin, post-transition, Connor demonstrated increased symptoms on the Withdrawn and Anxiety Problems subscales (both increased from borderline to

clinical range). Symptoms on the Emotionally Reactive, Internalizing Problems, Depressive
Problems, and Autism Spectrum Problems subscales all remained in the clinical range post-
transition. Despite this, his Total Problems score reduced from the clinical range on the pre-
transition CBCL to the borderline range post-transition. To determine whether or not the changes
in scores from pre-transition to post-transition were significant, the RCI was calculated for each
subscale. When looking at the RCI scores, no change in scores were considered to be statistically
significant. A summary of Connor's scores can be found in Table 9.

Table 9

Connor's Scores on the CBCL Questionnaire

Subscales	Pre- T-score	Post- T-score	RCI
Emotionally Reactive	77**	70**	-1.79
Anxious/Depressed	59	63	0.54
Somatic Complaints	50	50	0
Withdrawn	67*	70**	0.93
Sleep Problems	59	59	0
Attention Problems	57	57	0
Aggressive Behavior	58	59	0.31
Internalizing Problems	67**	67**	0
Externalizing Problems	58	59	0.25
Total Problems	65**	63*	-0.48
Depressive Problems	75**	72**	-0.74
Anxiety Problems	67*	70**	0.70
Autism Spectrum Problems	78**	74**	-1.57
Attention Deficit/Hyperactivity Problems	57	57	0
Oppositional Defiant Problems	59	55	-0.75

Note. * borderline range. ** clinical range. *** statistically significant RCI score.

Interview summary. To better understand reported changes in functioning, a semi-
structured interview was conducted with Caitlin post-transition. Caitlin reported that Connor
experienced difficulties not only once he started school, but with the anticipation leading up to
the first day. She stated,

He would know that, even though he tunes out a lot of things, he knew that a big change was coming. We were talking to him about it so he would know it was coming and there is just a lot of build up for it over the weeks ahead of time. He had lots of meltdowns, he couldn't fall asleep that night. He was just so amped up. We saw a lot more of his repetitive behaviours, he was over-directive with his play, and just other things. Like we would try to get him to go to that playground, but it would turn into a huge meltdown because he didn't want to go somewhere...like he started being more fearful of doing new things. He didn't want to leave the house as much. We could just feel that anxiety bubbling over in him.

Once the first day of school came along, Connor continued to have difficulties. Caitlin found that regardless of all the preparation done ahead of time, "he was extremely dysregulated the morning of. [She] had to barricade the door and he was just charging at [her]. He was just so anxious." Even though Connor appeared to be more tired and easily upset since the transition to school, Caitlin explained that for Connor, a degree of maladjustment would have happened regardless of how the transition went.

According to Caitlin, what helped Connor with the transition was having early intervention support throughout; they reportedly helped to plan the transition and checked in with Caitlin. Open communication with the transition team was helpful. While Caitlin felt that she had to be highly involved and initiate most of the communication, she reported that the level of communication was appropriate. Caitlin reported that preparation ahead of time was also important. Preparation consisted of having cohesion of supports from early intervention to school, like having his new teacher visit the early intervention placement, parent preparation like

attending meetings and open houses, and child preparation such as reading social stories and working on prerequisite skills like toileting. Caitlin stated,

> We had the book. I made a 'First day of School' social story. I tried to get him to the kindergarten playground to practice going there. I think as best we could, but it was very stressful for him, but I think it would have been 100 times more stressful without those things being done.

With regard to what might have affected Connor with the transition, Caitlin discussed her own anxiety around the transition. Caitlin had concerns about how he would adjust and whether or not he would be successful. She reported, "It's just with all the change and being so worried about how it would impact him, I felt that I was quite anxious while preparing for this". There were also challenges associated with the time of the transition. For example, even though they started preparing for the transition in January and February, some things could not be confirmed until school started, such as the number of students in the classroom. A high student to teacher ratio was a particular concern of Caitlin's, as Connor was going from a small ratio in early intervention to being with almost 30 other students and potentially only having one teacher.

Summary. Connor reportedly experienced increased symptoms on the Withdrawn and Anxiety Problem subscales, and continued to have elevations on the Emotionally Reactive, Internalizing Problems, Depressive Problems, and Autism Spectrum Problems subscales, but a lower score on the Total Problems subscale. Even though no changes were found to be reliably significant based on the RCI scores, according to Caitlin, Connor did experience difficulties with the transition, particularly with anxiety and conduct problems. While it is difficult to discern exactly what might have impacted Connor's functioning, what helped was having the support of early intervention, open communication, high parental involvement, and preparation for herself,

Declan, and the school. What might have impacted Connor was Caitlin's own worries related to the transition, challenges in working with the school, and the differences between the two settings, particularly student to teacher ratios.

Case 3: Magnus (age 5), mother Mollie

At the time of the study, Magnus was 5 years old and had one younger sibling (age 4 years). Magnus' mother Mollie was married and working as a teacher, which she described as a "funny position to be in, as the mom and now the teacher. [She could see] both sides of the game". Mollie described Magnus as an active and imaginative boy with a great sense of humour who enjoyed reading. Magnus was diagnosed with ASD and no longer presented with any problem behaviours, but reportedly put non-food objects in his mouth. Mollie explained that Magnus had made many gains over the years, so much so that people often did not realize that he had ASD, which resulted in awkward social interactions. Magnus presented with slight delays in language; he had a large vocabulary and was reading above grade-level, but had difficulties using language in a social communicative context. Magnus had received early intervention support since the age of 2 years. He received individualized support from an interventionist (approximately once/month) and attended an early education preschool program since the age of 3 years, where he had access to a speech and language pathologist, occupational therapist, and an aide (3 mornings/week for over two years). For nine months, he also attended a child care centre with speech and language, occupational therapy, and aide support (5 mornings/week for 3-4 hours). At the time of the study, Magnus was entering school full-time into an inclusive classroom, with 1-to-1 aide support in the morning and shared support in the afternoons. In his classroom, there were 12-13 students identified as having a mild or moderate delay and three students with diagnoses.

CBCL results. When comparing Magnus' pre-transition with post-transition scores, according to Mollie, he demonstrated increased symptoms on the on the Depressive Problems (clinical range) and Externalizing Problems subscales (borderline range). Magnus continued to demonstrate elevations on the Emotionally Reactive (borderline range), Withdrawn, Internalizing Problems, Total Problems, and Autism Spectrum Problems scales post-transition (all clinical range). Despite this, reported Sleep Problems improved post-transition (no longer in borderline range). When looking at the RCI scores, no change in scores were considered to be reliably significant (i.e., RCI score greater than or equal to 1.96). A summary of Magnus' scores can be found in Table 10.

Table 10

Magnus' Scores on the CBCL Questionnaire

Subscales	Pre- T-score	Post- T-score	RCI
Emotionally Reactive	67*	65*	-0.89
Anxious/Depressed	52	51	-0.54
Somatic Complaints	62	58	-0.93
Withdrawn	76**	73**	-0.93
Sleep Problems	67*	64	-1.04
Attention Problems	57	57	0
Aggressive Behavior	56	62	1.22
Internalizing Problems	67**	64**	-1.42
Externalizing Problems	57	61*	1.01
Total Problems	67**	67**	-0.12
Depressive Problems	67*	70**	0
Anxiety Problems	63	57	0.74
Autism Spectrum Problems	78**	74**	-1.57
Attention Deficit/Hyperactivity Problems	57	54	-0.5
Oppositional Defiant Problems	52	55	0.75

Note. * borderline range. ** clinical range. *** statistically significant RCI score.

Interview summary. To better understand the reported changes in functioning, a semi-structured interview was conducted with Mollie post-transition. Mollie reported that Magnus had

difficulties adjusting to his new placement, as evidenced by aggression and escape behaviours. Magnus was considered to be a "runner" and started doing it more, especially at school. Mollie was not sure if it was because he was actually trying to leave school or because he had less supervision. Magnus expressed his views of school to his mother. Mollie reported,

> He says that there's too many children. He is tired of the Smartboard, but [she doesn't] know what that really means because it could mean something else too. Sometimes when he says he doesn't like something, [she doesn't] know. [She tries] to ask him but he's not really clear. Like it might just be something that happens at that time. Like it might be Johnny pulling [his] hair at that time, something like that.

According to Mollie, what helped Magnus with the transition was that she was a teacher and was aware of "what was coming", which helped her to prepare Magnus ahead of time. She had him complete an extra year in kindergarten to develop more pre-requisite skills. When it came time to go to school, Mollie brought him to meet the teacher, talked to him about what school would be like, and they read books about going to school. Mollie explained,

> He is somebody that needs to know ahead of time and if it's not the way that you said it's going to be, it could lead to a meltdown or some not happy behaviour… so it's things like that. If he knows in advance, he is really good at being like, 'This is ok'". Mollie added that it might have been helpful to do more preparation ahead of time, such as practicing the morning routine of getting up and going to school.

With regard to what might have affected Magnus in the transition, Mollie reported that there was the lack of planning between early intervention and school. Transition planning did not start until the spring of his transition year and Mollie reported that there was really no plan in place. Mollie reported that some information was not known until the start of school, like who

the aide would be, and there was subsequently a delay in accommodations. Mollie felt that there was less communication with the school, especially in comparison to what she was used to in early intervention. She stated,

> I am an involved parent, so I go and I talk to them, but I find that it's a little bit different at school where I don't get to see the teacher as much. I mean, I know her so I can talk to her, but she's super busy and the aides don't want to be talking to you about stuff in the hallway.

While Mollie felt that she had to initiate most of the communication with the professionals involved in the transition and had to be highly involved, she felt as prepared as possible as a teacher. As a mother, it was more difficult for Mollie to predict how Magnus would handle the transition. She reported that she was a little nervous about the transition and discussed how Magnus starting school impacted the whole family. For instance, his brother started preschool at the same time and Mollie had given up a full-time contract to support these transitions.

Mollie also discussed particular challenges involved in working with the school. She reported that Magnus was placed in a large class of 22 students and he would tell her that this was too many students. Magnus did have access to an aide, but the aide that was there was instructed to help the whole class and not necessarily Magnus in particular, resulting in less individualized support compared to early intervention. The school reportedly made "promises" to do certain things, however these promises did not come to fruition. For example, the school mentioned that Magnus could start going to school in the afternoons while in early intervention to help him adjust, but this did not happen.

Summary. According to the scores on the CBCL, Magnus demonstrated increased symptoms on the Depressive and Externalizing Problems scales, and continued to have

elevations on the Emotionally Reactive, Withdrawn, Internalizing Problems, Total Problems, and Autism Spectrum Problems subscales. No RCI scores were found to be significant, but according to Mollie, Magnus did experience difficulties, particularly with aggression and escape behaviours. According to Mollie, what helped was that she had an idea of what to expect, which helped to prepare Magnus ahead of time by developing new skills and increasing familiarity with school. What might have impacted Magnus was delayed planning, limited communication with school compared to early intervention, and challenges associated with school, such as the large class sizes, shared aide access, and the school not coming through with promises. Additionally, Mollie mentioned that the transition impacted the whole family.

Case 4: Alex (age 6), mother Angela

At the time of the study, Alex was 6 years old and had two older siblings (ages 11 and 13 years). Alex's mother Angela had a common-law partner and was working as an assistant manager. Angela described Alex as a happy, loving, imaginative, and active boy who enjoys playing make-believe, being outside, and reading. Alex was diagnosed with ASD and presented with severe language delays, as he only communicated basic needs with visuals or gestures, and demonstrated problem behaviours such as hitting and throwing objects. In terms of early intervention, Alex participated in therapy with an interventionist, who also provided Angela with parent training on how to implement the strategies at home (approximately 1-2 hours/week). Alex also had funding to attend an early education preschool with support from a speech and language pathologist and behaviour therapist onsite. At the time of the study, Alex was entering school full-time into a program designed for children with ASD, which was a new program at that particular school, with the opportunity for inclusion during activities like library or reading.

CBCL results. When comparing Alex's pre-transition to post-transition scores, according to Angela, he demonstrated increased symptoms on the on the Oppositional Defiant Problems subscale (borderline range). Alex continued to demonstrate elevations on the Withdrawn/Depressed, Social Problems, Externalizing Problems (all borderline range), and Thought Problems, Attention Problems, Total Problems, and Obsessive Compulsive Problems subscales post-transition (all clinical range). Despite this, his score on the Internalizing Problems subscale decreased and was no longer in the borderline range. When looking at the RCI scores, three scales were found to demonstrate statistically significant change post-transition. Alex's RCI score for the Thought Problems scale was 3.54, which suggests that he reliably experienced an increase in symptoms. His RCI score for Anxiety Problems was -3.03 and for Conduct Problems was -3.53, which suggests that he reliably experienced fewer difficulties in these areas post-transition. A summary of Alex's scores can be found in Table 11.

Table 11

Alex's Scores on the CBCL Questionnaire

Subscales	Pre- T-score	Post- T-score	RCI
Anxious/Depressed	59	51	-1.76
Withdrawn/Depressed	68*	66*	-1.41
Somatic Complaints	53	57	1.41
Social Problems	69*	67*	-0.79
Thought Problems	74**	79**	3.54***
Attention Problems	75**	79**	0.79
Rule-Breaking Behavior	57	57	0
Aggressive Behavior	64	61	-1.01
Internalizing Problems	63*	58	-1.52
Externalizing Problems	62*	60*	-0.83
Total Problems	71**	71**	-0.17
Depressive Problems	60	60	0
Anxiety Problems	65*	54	-3.03***
Somatic Problems	50	50	0
Attention Deficit/Hyperactivity Problems	62	62	0
Oppositional Defiant Problems	62	66*	0.88
Conduct Problems	63	54	-3.53***

Note. * borderline range. ** clinical range. *** statistically significant RCI score.

Interview summary. To better understand the reported changes in functioning, a semi-structured interview was conducted with Angela post-transition. Angela reported that for Alex, the transition went "smoother" than anticipated. Alex was a little scared at first because there was a lot of noise and many other students present, which he reportedly found distracting and overwhelming. Even though he had attempted to escape from his harness on the bus and seemed tired at the end of the day, he was usually excited to go to school. According to Angela, Alex "wakes up in the morning and says, 'Ok, get ready to go to school' and he used to like school before, but he was more about the bus and now he seems to genuinely like his school". Angela noted that some of Alex's skills had even improved since starting school; his speech had increased "drastically" and he seemed to be more perceptive to his environment.

According to Angela, what helped Alex with the transition was how supportive the early intervention program staff were. The staff were checking in with Angela, helping with decision-making, and advocated for Alex at the school, which allowed for open communication between early intervention and the school. Angela said, "I think us all getting together and sharing what we knew and how he responds and what he responds best to made a really big difference in him having some of that consistency". Angela highlighted the importance of being highly involved in the transition. Angela spent a great deal of time working with Alex to increase his familiarity with the school environment and the people he should know. Angela also created an binder for the school with information about Alex with tips and tricks to support his learning. To help prepare herself, Angela did a lot of reading, participated in forums, and accessed support from an ASD advocacy group.

With regard to what might have affected Alex in the transition, Angela reported that there was a delay in accessing support services at school. At the time of the interview, Alex still had not received support from the speech and language pathologist or behaviour therapist. Angela discussed how a fear of losing services and Alex possibly regressing, resulted in a great deal of anxiety for her. Angela stated,

> I was a mess. I found it really stressful. I had anxiety attacks. When we first started looking at the transition, I was starting to get anxious and nervous and you know, trying to figure it out like "how am I going to prep him for this" and there is no guideline for this. There are no instructions included, so I found it really stressful. I was having some physical reactions even because I found it so stressful. I had to take a week off work.

Angela reported that she felt like the school was unprepared to support Alex, which reinforced her fear that Alex's skills might regress. Angela mentioned that they would have

benefitted from having a case manager to help navigate the transition and to work out logistics, like bussing. Furthermore, Angela reported that she would have liked more time for transition planning prior to Alex starting school.

Summary. On the CBCL, Alex reportedly had increased symptoms related to Oppositional Defiant Problems and continued to have elevations on the Withdrawn/Depressed, Social Problems, and Externalizing Problems, Thought Problems, Attention Problems, and Total Problems subscales. Based on the RCI scores, Thought Problems reliably increased, but Anxiety Problems and Conduct Problems reliably decreased post-transition. Even though there were many elevations on the CBCL, Angela did not highlight this in the interview. Angela reported that while Alex was a bit scared at first, he had since improved some of his skills and enjoyed going to school. What helped Alex was that she was highly involved in the transition and was able to communicate with professionals. Angela spent a lot of time increasing Alex's comfort with school, informing the school of Alex's needs, and sought out information and support herself. Angela reported that the school was unprepared to support Alex and she experienced significant anxiety. Angela reported that the early intervention staff were supportive, but she would have benefited from having a case manager and more time to plan the transition.

Case 5: Declan (age 6), mother Kim

At the time of the study, Declan was 6 years old and had two siblings (ages 4 years and a twin 6 years). Declan's mother Kim was married and working in health information management. Kim described Declan as a sensitive and caring boy who paid attention to detail. Declan's primary diagnosis was ASD, but also had Obsessive Compulsive Disorder, Attention-Deficit Hyperactivity Disorder, Generalized Anxiety Disorder, and Dyspraxia. Declan presented with language delays, severe receptive and moderate expressive language difficulties, and had

problem behaviours, such as aggression when rules or rigid thoughts were not followed by others. In terms of early intervention, Declan participated in therapy even before formally receiving an ASD diagnosis at 3 years old. Declan's parents participated in parent training with an interventionist (approximately 2 hours per week). They also participated in programs like Triple-P Parenting and the Incredible Years. At the time of the study, Declan was entering school full-time into an inclusive double classroom, meaning that there were 37 students with two teachers teaching simultaneously or "tag teaming".

CBCL results. When comparing Declan's pre-transition to post-transition scores, according to Kim, he demonstrated increased symptoms on the Anxiety Problems (borderline range), Internalizing Problems, and Total Problems subscales (clinical range). Based on her responses, Declan also continued to demonstrate elevations on the Attention and Somatic Problems subscales pre- to post-transition (borderline range). Despite this, his scores on the Thought Problems and Attention-Deficit Hyperactivity Problems subscales decreased and were no longer in the borderline range. When looking at the RCI scores, three scales were found to demonstrate statistically significant change post-transition. Declan's RCI score on the Rule-Breaking Problems scale was 2.35. Even though neither the pre- or post-transition scores were found to be elevated based on the CBCL descriptors (i.e., not in borderline or clinical range), his post-transition score was reliably higher than his pre-transition score, suggestive of increased problem behaviours. The RCI score for Anxiety Problems was 2.00 and for Conduct Problems was 4.71, which suggests that his scores on these subscales were reliably higher post-transition. A summary of Declan's scores can be found in Table 12.

Table 12

Declan's Scores on the CBCL Questionnaire

Subscales	Pre- T-score	Post- T-score	RCI
Anxious/Depressed	59	62	0.58
Withdrawn/Depressed	62	62	0
Somatic Complaints	61	64	1.41
Social Problems	62	65*	0.79
Thought Problems	70**	64	-1.76
Attention Problems	66*	66*	0
Rule-Breaking Behavior	53	60	2.35***
Aggressive Behavior	55	55	0
Internalizing Problems	63*	65**	1.01
Externalizing Problems	54	58	0.83
Total Problems	63*	65**	0.86
Depressive Problems	52	60	1.77
Anxiety Problems	58	65*	2.02***
Somatic Problems	65*	65*	0
Attention Deficit/Hyperactivity Problems	66*	62	-1.01
Oppositional Defiant Problems	55	58	0.88
Conduct Problems	51	63	4.71***

Note. * borderline range. ** clinical range. *** statistically significant RCI score.

Interview summary. To better understand the reported changes in functioning, a semi-structured interview was conducted with Kim post-transition. Kim reported that Declan's teacher said he was doing "fine", but Kim did not believe that they "really started into things yet". Kim noted that while he was apparently doing well at school, he was having more "meltdowns" once he got home and was getting upset over "little things". Kim explained,

> It's hard because he physically looks like nothing is wrong and where we have the meltdowns is when he comes home and it's a little too overwhelming for him. Just knowing that last year he had timers and transition boards for each thing and if anything changed, they gave us enough notice. His teacher said that it's going great. She said, 'You know, he's doing fine without the transition boards and that' and I'm like, 'Well, I'm not sure he is because he's having meltdowns at home and how much is he understanding it?'

Kim reported that Declan also had some anxiety during the transition, but once they went through the social story she had created and they were able to visit the classroom, his anxiety reduced, despite still "sucking on his arm" on the first day of school. Kim noticed that Declan's aggressive behaviour had reduced since starting school and he was using calming strategies like going to his room or to the closet with the IPad, and using his words and saying "Stop".

According to Kim, what particularly helped Declan with the transition was her being highly involved in the transition. Kim spent a great deal of time creating the social story and a learning profile about Declan for the school, including the learning strategies that worked in early intervention and information about medications he was taking. To help prepare herself, Kim participated in forums and workshops, and accessed support on social media.

With regard to what might have affected Declan in the transition, Kim reported that there were difficulties in communication and collaboration with the school. Kim explained that the staff from early intervention were prepared to support the school, but the school staff did not "show up" to the transition planning meeting, which was frustrating for her. It also left Kim with lots of questions;

> I mean, shouldn't they be providing the social stories? What to expect and what grade 1 looks like? What the expectation will be on him. What does the classroom specifically look like and academic stuff…More reading? More writing? Will he have to sit longer in his desk?

The lack of communication and collaboration also resulted in the school not implementing recommendations Kim had made. For example, Kim stated,

They had a drill the other day and there was a memo that went home on the Sunday that it would happen on the Monday and I asked if they had put in a visual about that or prepared him, and they said no.

Kim reported that she would have liked to have more communication between the early intervention program, the school, and herself to increase the cohesion of learning strategies, which would have also resulted in her being more aware of what to expect with the transition. Kim mentioned that they would have benefited from having more time to plan the transition. Transition planning only started in June, which consisted of one meeting to get Kim to sign his IPP; there was no discussion about a transition plan. Finally, Kim reported that since starting school, there had been reduced and delayed access to support services, like speech and language and occupational therapy. Kim stated, "I don't think that we will be getting a lot of services now in grade one, like they are completely gone".

Summary. On the CBCL, Declan had many elevations, both pre- and post-transition. Kim reported increased symptoms on the Anxiety Problems, Internalizing Problems, and Total Problems subscales, and continued to have elevations on the Attention Problems and Somatic Problems subscales. Despite these elevations, Declan reportedly exhibited fewer symptoms related to Thought Problems and Attention-Deficit Hyperactivity Problems post-transition, but these changes were not reliably lower (i.e., no longer in borderline or clinical range, but not a significant RCI score). Based on the RCI scores, there was a reliable difference on the Rule-Breaking, Anxiety, and Conduct Problems subscales post-transition. Some of these elevations were highlighted in the interview with Kim. She reported that while his aggression had reduced and he was using more coping strategies, he was having more "meltdowns" and was quick to anger at home. She also reported some anxiety during the transition due to the change and

"overwhelming" nature of school, but high parental involvement, a social story for Declan, and a learning profile for the school were helpful. What might have impacted Declan was the lack of communication, collaboration, and early transition planning, and reduced and delayed access to support services in the school.

Cross-Case Analysis

A cross-case analysis was conducted to better understand the commonalities between the participants' experiences with the transition from early intervention into school with their child. Based on the results of the cross-case analysis, four main themes emerged: 1) Transition to school impacts emotional and behavioural functioning; 2) Starting school with challenges; 3) High parent involvement; and 4) Impact on family. The four themes are detailed in the following section.

   Transition to school impacts emotional and behavioural functioning. All participants in the study reported that the transition impacted their child's emotional and behavioural functioning, in one way or another, which was evident on either the CBCL, during the interview, or in a combination of both. However, even though all children were reportedly impacted by the transition, how each child presented varied. For example, while Alex was reportedly only a little scared at first with the noise and all the children at school, symptoms related to anxiety and conduct problems on the CBCL decreased post-transition, but Thought Problems increased. In comparison, Connor was reportedly dysregulated and exhibited increased meltdowns in anticipation to the start of school and this continued after he started school. Connor was also visibly anxious, as he became fearful of doing new things, was hesitant to leave the house, exhibited increased repetitive behaviours, and was more directive in his play, all of which also came across on his post-CBCL. Even though Alex and Connor's experiences post-transition

were different in topography and intensity, their emotions and behaviours did in-fact change during the transition.

When looking at common emotional and behavioral challenges, based on the RCI scores, significant and reliable changes in symptoms of anxiety and conduct problems were common, but the direction and amount of change varied. For example, Declan and Emmett's scores for anxiety yielded significant RCI scores suggestive of increased symptoms post-transition, but Alex's RCI score, while significant, was suggestive of a decrease of symptoms. For Connor, his RCI score was not significant, but when examining his scores on the Anxiety Problems subscale, it increased from the borderline to clinical range post-transition, suggestive of more difficulties. Conversely, Magnus' scores for anxiety were not significantly elevated pre- or post-transition. A similar trend was found for Conduct Problems. During the interviews, some parents described increased challenging behaviours. For example, Connor reportedly was charging at his mother, Magnus was angry about going to school and demonstrating escape behaviours, and Emmett did not want to go to school near the end of the week. However, on the CBCL, while Declan's scores yielded a significant RCI score suggestive of increased symptoms, Alex's score was suggestive of a significant decrease of symptoms.

Overall, it is apparent that the transition from early intervention to school had an impact on emotional and behavioural functioning, particularly related to anxiety and conduct challenges, but the degree and direction of change was individualized. Changes in functioning also appeared to be influenced by the child's pre-transition functioning, as most children demonstrated many borderline or clinical elevations pre-transition. Furthermore, according to parents, functioning was impacted by the transition practices used, like how the lack of communication resulted in fewer visuals for Declan during a fire drill, and the setting to which the child was being

transitioned to, where student to teacher ratios and the number of children in the classroom varied.

Starting school with challenges. While emotional and behavioural functioning changes were individualized, what was consistent was that all children were entering school with pre-existing psychological challenges. For example, expected subscale elevations for a "typical" child with ASD were found, such as elevations of the Thought Problems and Autism Spectrum Problems subscales, which suggests that these children continued to demonstrate symptoms of ASD as they started school, despite participating in early intervention. On top of this, the children in this study presented with symptoms in other areas, some of which were not characteristic of a diagnosis of ASD, as per diagnostic criteria. For example, aside from the Thought Problems or Autism Spectrum Disorder Problems scales, four of the children demonstrated additional clinically significant elevations on the CBCL; Alex had elevations on the Attention-Deficit and Total Problems subscales, Connor had elevations on the Emotionally Reactive, Withdrawn, and Internalizing, Depressive, and Anxiety Problems subscales, Magnus had elevations on the Withdrawn, Internalizing, Total, and Depressive Problems subscales, and Declan had elevations on the Internalizing and Total Problems subscales. Emmett had no clinical elevations on the CBCL, but borderline elevations were found for Somatic, Internalizing, and Anxiety Problems.

Variation in presentation prior to school was also highlighted in the interviews with parents. For example, Emmett reportedly had speech delays and issues with safety, Declan had noise sensitivities and exhibited withdrawal behaviour when he thought he was being singled out with learning tools, Alex had difficulties with attention and was easily distracted, Magnus presented as high functioning, but sometimes had difficulties understanding what was being said,

and Connor had anxiety related to change. Even though the children in the current study all presented differently prior to starting school, they undoubtedly would have brought their own unique challenges to the classroom; information that all parents reported would be beneficial for professionals to know when preparing for a student's transition to school.

High parent involvement. All parents in the current study were reportedly highly involved in their child's transition. Because there was no professional designated to take the lead in any of the transitions, parents were left to initiate and coordinate the collaboration and communication between the early intervention and school settings, including having to set meetings and program visits. Parents talked about how they had to speak up for their child and advocate for their needs at school. For example, Declan's mother reported that she has to push for the teacher to use visuals in the classroom to support his learning and Emmett's mother taught school staff how to use his augmentative communication device. Connor's mother stated,

I had to advocate for him because nobody else really sees the big picture I guess. Teachers think of the classroom setting, but you know, I have to think about his whole life and his whole well-being. I think that everybody was really mindful of that. I don't think that his interests would have been as well reflected if I had less involvement.

Parents appeared to use a lot of their own time to support the transition, such as creating materials (e.g., an "All About Me" binder for school), reading about school and the transition, preparing their child for the transition (e.g., reading books about school), and attending workshops. Furthermore, parents were talking to and supporting each other through forums and on social media. It is important to note that high parental involvement was not a requirement for the transition; the parents in the current study took it upon themselves to be active participants in the transition.

Impact on family. Along with the difficulties experienced by their child with ASD, parents also discussed the various ways that the transition impacted their lives. In particular, for the parents in the current study, a degree of worry and anxiety were frequently reported; however, the degree of anxiety experienced by parents varied considerably, ranging from general concerns regarding their child's adjustment at school and whether or not they made the right placement decision, to reported panic attacks. What might have also contributed to anxiety and worry were the changes parents had to make in their careers or work schedules to support their child through the transition. For example, Magnus' mother gave up a full-time contract at work to have more time to support him and his brother who was starting preschool and Alex's mother took a week off work due to the stress associated with the transition. While the emotional and behavioural functioning of parents was not directly explored in the current study, the results suggest that their functioning is likely impacted by the transition, especially in relation to how well their child is able to adjust to their new placement at school.

Discussion

The current study is one of the first that has specifically examined the emotional and behavioural functioning of children with ASD during the transition from early intervention to school. Overall, the results indicate that children with ASD exhibit significant emotional and behavioural symptoms prior to the transition and their functioning can change after transitioning into school. While I acknowledge that there is non-independence with some subscales (e.g., items from Anxiety Problems subscale also fall under the Internalizing Problems subscale), it was clear that each child varied in their presentation, all children demonstrated borderline or clinical elevations on the CBCL both pre- and post-transition, and based on the interviews with parents, also experienced a degree of maladjustment in the first few weeks of school. When

looking at the reliable change in pre- to post-transition scores on the CBCL, changes in anxiety and conduct were found to be significant however, while some children's scores increased, others decreased. According to parents, even though the transition was generally positive, changes in anxiety and conduct were related to specific factors associated with the transition and the nature of school itself; changes in routine, professionals, and schedule, being in a new environment, and the chaotic nature of school (e.g., various sounds and the number of children in the classroom).

To help support the emotional and behavioural functioning of the children in the current study, having a good working relationship with early intervention and school staff, planning ahead of time, facilitating open communication, and increasing the child's familiarity with school and their new placement were found to be key transition experiences, which is consistent with previous literature on school transitions and ASD (e.g., Dann, 2011; Nuske et al., 2018; Tso and Strnadova, 2017; Villeneuve et al., 2013). In particular, Tso and Strnadova (2017) found that parents of youth with ASD making the transition into high school reported varying levels of transition support, but found the collaboration to be positive. They also found that it was helpful when professionals prioritized parent knowledge of their child, increased planning ahead of time, and facilitated home-school collaborations. Parents also commented on their child's wellbeing during the transition; some youth were a bit nervous, while others struggled significantly (e.g., tantrums and depression).

Similarly, looking at the transition to secondary school, Dann (2011) reported similar themes that emerged from interviews with students, parents, and professionals. Dan (2011) found that participants were generally positive about the transition, but it was anxiety-provoking to students, parents, and teachers, particularly regarding the student's ability to adapt, and it had an

emotional impact on those who had to support the student. Helpful transition practices included supporting the child in becoming familiar with the new environment (social and physical environment), helping them to engage in learning (including motivation and learning strategies), being proactive in planning to ease difficulties with change, increased home-school communication and collaboration, specialist support, support for mainstream teachers, and factors that support transition (such as helpful and understanding staff, program visits, structures and routines, communication, staff knowledge, and relationship with student). The results of the current study were also similar to Villeneuve et al. (2013) who examined the transition needs of children with various disabilities, not just ASD. These researchers found that navigating the transition to school was complex for families, but there was some positive collaboration between schools and intervention programs, high level of parent involvement, and highlighted the importance of open communication.

While parents in the current study discussed the benefits of transition, such as their child improving communication skills, not being held back due to their diagnosis, and their child enjoying school, there were many challenges. In particular, families consistently discussed the difficulties related to school. The main concerns parents reported were primarily related to the characteristics and nature of school itself, such as large student-to-teacher ratios, not knowing who their child's teacher or aide would be before the start of school, and delayed or limited access to support services, which can especially frustrate parents (Parsons et al., 2009) and can leave them to resort to accessing private services in the community (Podvey, Hinojosa, Koenig, 2013). Even though these challenges are simply due to the nature of the school environment and are likely to change over time, if the professionals involved in transitions were more aware of their impact on children and families, they could be proactive in communicating with families

and putting possible safeguards in place ahead of time (e.g., planning to have small group pull-outs if the class size is large).

Emotional and Behavioural Needs During the Transition

Based on the results of the current study, it is apparent that children with ASD are vulnerable to changes in emotional and behavioural functioning when transitioning from early intervention to school, particularly with anxiety and conduct problems. According to parents, having too many students in the classroom, not having visuals that the student is familiar with, new routines and schedules, and being overtired and over-stimulated were the most impactful to changes in functioning. To help offset these challenges, parents recommended certain transition practices; early transition planning, high parental involvement, helping the child to increase their familiarity and comfort level with school, ensuring that the new setting was adequately informed about the child's strengths and needs, and confirming access to specialized support professionals ahead of time.

Pre-transition functioning. All five children in the current study demonstrated significant symptoms on the CBCL pre-transition. With regard to pre-transition functioning, the main subscale elevations were generally expected given DSM-V (APA, 2013) criteria for ASD: withdrawal symptoms, Thought Problems, and Autism Spectrum Disorder Problems. These results are consistent with previous studies looking specifically at preschoolers with ASD. Pandolfi et al. (2009) found that their ASD group's scores were significantly higher than the normative sample means on all subscales and similarly, Giovagnoli et al. (2015) and Hartley et al. (2008) found significant elevations for withdrawal symptoms. These subscale elevations are also consistent with the previous literature on school-aged children with ASD (e.g., Hartini et al., 2016; Mazefsky et al., 2011; Pandolfi et al., 2012; Schroeder et al., 2011). Therefore, the

children in the current study demonstrated similar elevations pre-transition to other children with ASD who are not in the midst of transitioning to school. Pre-existing emotional and behavioural symptoms prior to starting school would be important information for a transition team to be aware of in order to prepare the school staff who would be working with the child, set up the environment in a way that is conducive to the child's strengths and needs, and to teach the child pre-requisite skills if needed.

High levels of symptomology on the CBCL for children and youth with ASD is not new. Pandolfi et al. (2009) found scores to be 45-99% more elevated for a group of preschoolers with ASD, Schroeder et al. (2011) found that 100% of their sample had a borderline elevation and 80% had at least one score in the clinical range, and Hartley et al. (2008) found that 81.7% of children had one or more scores in the clinically significant range and 33.4% had two or three subscale elevations. Schroeder et al. (2011) found similar rates in their sample of children and adolescents with Asperger syndrome, where 100% of participants had at least one score in the borderline range and at least 80% had one score in the clinically significant range. Overall, these results highlight the high emotional and behavioural needs of children with ASD in general, not necessarily just when transitioning from early intervention into school.

A child with significant social and emotional challenges, comorbid with a diagnosis of ASD, would have additional transition needs compared to a child who is neurotypical or a child with only a diagnosis of ASD, which would in itself warrant more specific and targeted intervention than what is typically offered at school. The emotional and behavioural challenges of these children are a reality of what this population of children will be bringing into the classroom. The current study highlights the fact that even if the child does not have a formal dual diagnosis, they might still struggle with the transition. This would mean that without some sort

of screening or assessment before the transition, the school will have difficulty supporting their needs without knowing the student's level of functioning (Volker, 2012). Because symptoms can vary in presentation depending on time, context, and situation, an individualized and thorough understanding the characteristics of their emotional and behavioural needs would therefore be indispensable information for transition planning.

Post-transition functioning. Concerning emotional and behavioural functioning post-transition, according to parent report, all five children in the current study continued to experience emotional and behavioural challenges once they started school. In-fact, while some children experienced new or greater challenges in some areas, others demonstrated improvement in symptoms. Again, no CBCL profile looked exactly the same, but when examining RCI scores, changes in symptoms of anxiety and conduct problems were found to be most notable. In particular, two children demonstrated reliable increases in symptoms of anxiety (i.e., RCI scores greater than or equal to 1.96) and one child demonstrated increased anxiety with no significant RCI score, but one child demonstrated a reliable decrease in symptoms. For conduct problems, one child demonstrated a reliable decrease of symptoms, whereas another child demonstrated a reliable increase. Based on the CBCL, it is apparent that there was variability in anxiety and conduct problems during the transition. Conversely, according to the parent interviews, all children in the study experienced at least a degree of maladaptation during the first few weeks of school.

In a review of the literature related to the transition needs of children with ASD, Nuske and colleagues (2018) found that children and youth with ASD do struggle with anxiety during various types of educational transitions, including the transition into primary school and high school. In their review, two themes became evident in relation to emotional and behavioural

functioning; student characteristics, such as mental health and behaviour, and student interactivity, such as social skills and communication skills. However, it was noted that most of the transition studies that discussed social and emotional functioning were based on secondary student samples and therefore, the current study is able to fill part of this knowledge gap. When looking at the few studies based on the transition to primary school in particular, increased anxiety and fear, difficulties with new routines, physical disorientation, and transportation concerns were found. For older students transitioning to high school, anxiety related to school placement and social-emotional challenges were prominent. No difficulties with conduct problems were identified as being an issue in the primary school articles, but in secondary school samples, challenging behaviours were prominent. Overall, it is evident that educational transitions can have an effect on a child's functioning, but due to individual differences, it is difficult to predict exactly what symptoms will be become problematic once the child starts school; what might be challenging for one child, might not be for another.

Anxiety, ASD, and the transition to school. Symptoms of anxiety are quite common in the ASD population (Schroeder et al., 2011; White, Oswald, Ollendick, & Scahill, 2009), especially when measured with the CBCL (Giovagnoli et al., 2015; Hartini et al., 2016; Hartley et al., 2008; Pandolfi et al., 2009, 2012). Approximately 40% of those with ASD could ultimately meet diagnostic criteria for a comorbid anxiety disorder, which is markedly higher than neurotypical and clinically-referred children (van Steensel & Heeman, 2017) and is without considering subsyndromal symptoms. It is thought that children with ASD might have a neurobiological predisposition, where the difficulties associated with ASD combined with environmental factors result in anxiety. In essence, the core symptoms of ASD make them vulnerable to stressful experiences in the environment, which can result in anxiety and increased

frequency or intensity of ASD symptoms, including repetitive behaviours, and conduct problems (van Steensel & Heeman, 2017; Wood & Gadow, 2010). Based on this biological-environmental interaction, it is not surprising that the transition to school could induce symptoms of anxiety for many children and youth with ASD; however, the results of the current study suggest that the result of the biological-environmental interaction is not as clear-cut. The transition can certainly result in increased anxiety or conduct problems, but depending on the child, individual differences, environmental factors, and context, symptoms could also decrease.

The question as to why most, but not all children in the current study experienced increased symptoms of anxiety, could be related to the topography of anxiety in ASD. Researchers have noted that anxiety can look very different for a child with ASD than it does for other children (e.g., Kerns & Kendall, 2012; White et al., 2009; White et al., 2015), particularly on standard measures of anxiety (White et al., 2015). Many children and youth with ASD exhibit atypical symptoms of anxiety that do not necessarily meet any diagnostic criteria in the DSM, such as fear of change, fear of social situations without awareness, or just unusual fears (Kerns et al., 2014). As opposed to finding elevations in symptoms of anxiety on standard measures, it is likely that there is instead an increase in restrictive and repetitive or challenging behaviours that are being used as a maladaptive coping mechanism for the anxiety they feel (Spiker, Lin, Van Dyke, & Wood, 2012; White et al., 2009).

To better understand anxiety in ASD, Ozsivadjian, Knott, and Magiati (2012) ran focus groups with 17 parents and 4 children and youth with both ASD and anxiety. The researchers found that common triggers for anxiety were changes in routine, social or language–related challenges, specific fears, phobias, and obsessions, sensory needs or sensitivities, and their own high expectations, with the most common being a change or disruption to routine, like having a

new teacher, and social situations. The researchers found that children with ASD reportedly had considerable difficulty expressing their worries verbally and had a tendency to demonstrate anxiety through behaviour, typically taking the form of challenging behaviours, avoidance or escape, changes in arousal, sensory or repetitive behaviours, and somatic complaints. This is consistent with Conner (1999), who suggested that symptoms of anxiety can present more like withdrawal or challenging behaviours.

For at least some children in the current study, it is possible that increased challenging behaviours were related to anxiety, especially since all parents reported at least a degree of maladaptation. It is therefore possible that some symptoms were attributed to ASD, as opposed to anxiety. There is much diagnostic overlap between anxiety and ASD and co-occurring symptoms are often misidentified, such as compulsions and social avoidance (Kerns & Kendall, 2013; Wood & Gadow, 2010). To discern exactly why a symptom or behaviour is occurring, it is apparent that diagnostic clarity is necessary, which might only be possible from ASD-specific measures or interviews with parents. Clarification of why a child is exhibiting a certain symptom can be difficult or impossible when the child likely has difficulty explaining how they are feeling (Conner, 1999; Wood & Gadow, 2010), so it has been recommended to use multiple informants and modes of investigating symptoms of anxiety (White et al., 2009), especially those that are ASD-specific (Wood & Gadow, 2010). In relation to the transition to school, it is particularly important to gain a parent report of functioning because the school will be more focused on educating the child and not necessarily on the child's ability to function (Podvey et al., 2013).

To succeed at school, Hundert (2009) discussed how a child must be able to participate and learn individually and in a group environment, remain on task, follow routines, and be an active participant, all of which are very difficult for a child who has ASD and emotional and

behavioural challenges. This highlights the need for transition teams to be aware of how anxiety might impact a child's ability to function in an environment that is as fast-paced, variable, and cognitively demanding as school. Even though additional emotional and behavioural challenges in ASD can result in poorer outcomes (Howlin et al., 2004), functioning and adaptation have been found to improve as children and youth have time to adjust post-transition (Dillon & Underwood, 2012; Hannah & Topping, 2013).

Impact on Families

Even though increased anxiety was not reported for all children in the current study, a degree of parental anxiety was consistent. It was evident that the transition to school was just as impactful for parents as it was for their children, ranging from anxious thoughts to reported panic attacks. Similar results were found by Tso and Strnadova (2017), where some parents reported to be anxious before the transition to high school and in a review of educational transitions by Nuske et al. (2018), it was found that parents reported feeling overwhelmed by placement decisions and worried about the well-being of their children. Moreover, anxiety or worry prior to the start of school has also been reported by parents of children with various other disabilities, not just ASD (Villeneuve et al., 2013). The transition to school for a child with special needs can be viewed as an opportunity or a vulnerability by parents (Dockett, Perry, & Kearney, 2012), the latter of which could trigger emotional challenges.

In the current study, parent anxiety seemed to stem from worries about their child's adaptation and the inevitable role change that parents went through. With regard to child adaptation, a child's challenges have the potential to increase stress levels for parents, almost as if it "transfers" (Ozsivadjian et al., 2012). Because parents are likely personally invested in the transition, any challenges their child faces at school run the risk of impacting parents negatively

as well. Since all children in the current study experienced a degree of maladaptation during the transition, it is not surprising that parents did as well.

To complicate matters further, parents would have been used to early intervention programs requiring a high level of parent involvement, especially parent training interventions that inherently make parents integral and central to their success. However, once a child leaves early intervention and starts school, this responsibility shifts towards teachers and other school staff. In essence, parents shift from an insider to an outsider role and parents might not initially be aware of or prepared for this role change (Podvey et al., 2013). Unlike early intervention, school is typically not family-centred and this can be stressful for parents of children with a disability (Janus, Kopechanski, Cameron, & Hughes, 2008; Minnes, Perry, & Weiss, 2015; Rous et al., 2007). This was evident in the parent interviews, as parents consistently complained about the level of communication they had with schools, in comparison to what they received in early intervention, and they reported a need for more. Compared to early intervention, communication between parents and school staff is typically distant or at arms-length (e.g., communicating through an agenda) and lower in frequency, which certainly does not help to ease the anxiety or worry that parents feel, nor does it help with relationship building. Families tend to respond better to perceptions of genuine care, empathy, and understanding (Fontil & Petrakos, 2015) and when they feel confident and empowered during the transition (Minnes et al., 2015), so professionals should consider opening lines of communication prior to the start of school to increase comfort and understanding, and to facilitate relationship building with parents (Podvey et al., 2013).

In the current study, parents also discussed the impact that the transition had on the whole family, which is consistent with previous studies looking at the transition for children with ASD

(e.g., Ozsivadjian et al., 2012; Podvey et al., 2013). Families make adjustments to their own lives during the transition and ultimately, how the family adapts can indirectly affect how the child with ASD experiences and adapts to the transition to school. Unfortunately, despite the high needs of families during transitions, they are often neglected as schools tend to focus their efforts on the child's adaptation and less on the family's experience in general (Janus et al., 2008). Transition teams should therefore recognize that the transition is a process for the family, not just for the child (Villeneuve et al., 2013), and professionals should attempt to determine how to best support the whole family's transition needs (Dockett et al., 2012).

Limitations and Future Directions

Even though the current study highlights the importance of evaluating emotional and behavioural functioning in children during educational transitions, there are some limitations to the conclusions made. While the results are considered to be preliminary, as this is one of the first studies to look at emotional and behavioural functioning during the transition from early intervention to school, the sample size is small. One reason for this is because the overall population of children transitioning into school at any given time is much narrower than recruiting just children with ASD. Also, as reported by the parents in the current study, the transition is a time of great change and stress for families, which possibly makes participating in research difficult for parents. Regardless of the small sample size, significant and clinically meaningful results were obtained. Future research is needed to confirm the emotional and behavioural needs of children with ASD as they experience times of transition.

Another limitation is that the results were reliant on parent report. It would have been ideal to include multiple perspectives of the child's emotions and behaviours to triangulate results, but it was a priority to first obtain the parent perspective because they are one of the only

people who remain consistent throughout the transition process. In schools, staff are often not identified until right before the start of classes in September and staff turn-around occurs frequently within early intervention programs. Because parents tend to know their children better than anyone, their perspective was thought to be ideal. Nonetheless, a degree of triangulation did occur in the current study, as the results of the CBCL were triangulated with the parent interviews to determine if and how a child might have struggled with the transition. In future research, the perspective of various members of the transition team, such as early intervention staff and school staff, and of the children themselves, if possible, would be informative. This would also be beneficial since the results suggests that parents often experience anxiety and worry themselves during the transition, which may have slightly skewed their perspective.

Conclusion

The transition from early intervention into school is likely one of the first experiences a child with ASD will have with school. Since schooling will inevitably be large part of their lives, it is imperative that the school be able to support the child in the classroom and the initial transition into school is an ideal time for this to happen. There is increased recognition that the emotional and behavioural needs of children with ASD are likely greater than neurotypical children who are transitioning to school and since there is a relationship between successful school adjustment and overall functioning (Rous & Hallam, 2012), it is important to facilitate a smooth transition and adequately support children with ASD at school. Based on the results of the current study, it is apparent that children with ASD and their families are indeed impacted by the transition to school.

The findings of this study support the need to establish routine screening of emotional and behavioural symptoms in children with ASD, particularly during times of educational

transition, to ensure they do not significantly contribute to their challenges. The clinical utility of the CBCL has been consistently established in the literature and was useful in the current study, and would be one of the best tools we currently have to add to a transition planning protocol, especially if a more recent comprehensive psychological assessment is not feasible or available. Furthermore, it is important to talk to parents about their child's emotional and behavioural needs prior to the transition to provide collateral information to clarify why a child might be exhibiting certain symptoms. This increased information sharing could result in increased transition preparation and support, having support services already in place before the child starts school, and it contributes to an overall better understanding of who the child is and what they need to succeed.

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Chapter 4: Conclusion

The aim of this paper-based dissertation was to contribute to our understanding of the transition from early intervention into school for children with ASD in terms of emotional and behavioural changes and variables that might impact a child and family's ability to adapt. In this final chapter, findings from the two papers are summarized and then integrated to make final conclusions. A discussion of the findings in light of the ecological framework proposed by Rous, Hallam, Harbin, McCormick, and Jung (2007) is also included. This chapter concludes with overall recommendations for successful transitions and suggestions for future research.

Summary and Integration of Findings

The first study titled, "Parental Experience of Transitioning a Child with Autism Spectrum Disorder from Early Intervention to School" sought to explore the common parental experiences underlying the emotional and behavioural functioning of children with ASD when they transition from early intervention to school. This qualitative study yielded six main themes: 1) Parent anxiety, 2) Preparation, 3) School challenges, 4) Parent involvement, 5) Early intervention support, and 6) Benefits of transition. Ultimately, according to parents, recommended transition practices such as open communication and transition planning were found to have an impact on their child's ability to adjust to school and the presence of these practices appeared to moderate parent anxiety. To improve transitions, it was recommended that professionals take the time to listen to parents, ensure to check-in with them throughout the process to ensure parents feel understood and supported, increase communication especially once the child is starts school, prepare for the transition as early as possible and make sure it involves more than just an orientation to school, and facilitate clarity and cohesion so everyone will be on the same page and parents will not feel confused and alone in the process.

The second study titled, "Children with Autism Spectrum Disorder and the Transition from Early Intervention to School: A Multiple Case Study" examined more thoroughly the functioning of five children with ASD as they transitioned to school. Using responses from the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2000, 2001) pre- and post-transition and a semi-structured interview with parents post-transition, the results suggested that children with ASD who are transitioning to school do experience emotional and behavioural challenges, but exactly what this looks like is different depending on the child. In particular, all children demonstrated high levels of symptomology prior to starting school, especially on subscales that were expected for children with ASD, however there was variability in which other subscales were elevated. Regardless, all children in the study demonstrated at least three borderline or clinical subscale elevations. When comparing their scores on the CBCL pre- and post-transition, reliable change scores (RCI) were significant for anxiety and conduct problems, but the direction of change was not consistent; some children demonstrated elevations, while one child demonstrated decreases. When discussing the nature of these emotional and behavioural changes with parents, they reported that the transition was stressful at least to a degree, for not just their children, but for themselves as well.

Despite the small sample sizes, each paper independently contributes novel information to our understanding of the transition from early intervention to school for children with ASD and their families. The first study provided insight into exactly which transition practices or other variables impact a child's transition, many of which were expected (i.e., the presence of recommended transition practices), but we now have a better understanding of how the transition impacts more than just the child, as parents discussed their own anxiety and worries. The second study went more in-depth in understanding the emotional and behavioural impact of the

transition, of which the results suggest that children do experience changes in emotions and behaviours, particularly with anxiety and conduct. Each paper was unique in which aspect of the transition they investigated, but in the end, they both emphasize the impact of emotions and behaviours on the transition for children and parents and yielded possible solutions and recommendations to improve future transitions. When integrating the findings of both papers, the main conclusions highlight individual differences, the role of anxiety, and child and parent emotional challenges. In the following section, an integration of the findings drawn from both papers is discussed.

Individual differences. Individual differences in ASD has garnered much research interest as of lately, especially in terms of understanding what interventions work and don't work for individual children with ASD (Trembath & Vivanti, 2014). Consistently, children and youth with ASD demonstrate deficits in social communication and interaction, and exhibit restricted, repetitive, and stereotyped behaviours, however, the presentation of their symptoms can vary considerably. In fact, the presentation of symptoms in ASD can vary so much that it has been argued that ASD should be described as a group of "autisms" as opposed to a single disorder (Geschwind & Levitt, 2007). A better understanding individual differences for children with ASD can help to predict how these children will respond to various interventions and consequently, we can personalize interventions to their strengths and needs (Trembath & Vivanti, 2014).

In the first paper, individual differences were evident. While some parents reported that their children struggled with the transition, at least to a degree, other parents reported that their child adjusted well. In the second paper, as a group, the sample looked like "typical" children with ASD on the CBCL according to the literature, with elevations on the Autism Spectrum

Problems and Thought Problems. However, it was apparent was that there was considerable variability in terms of exactly what symptoms were elevated and to what degree they were elevated; in essence, no CBCL profile was identical. Even if a child demonstrated the "typical" ASD symptom elevations on the CBCL, some were only in the borderline range and many children demonstrated more than three elevations, including elevations on scales that are not "typical" of ASD, such as somatic complaints. These results are similar to other transition studies who have found that some children and youth with ASD adjust better than others, which suggests that children with ASD are diverse and require individualization in the transition process (Dillon & Underwood, 2012; Fortuna, 2014; Hannah & Topping, 2012). Parents also explained that often, school staff had knowledge of ASD, but did not appear to thoroughly understand the specific characteristics of their child (e.g., sensory sensitivities). It was important to parents that school staff took the time to get to know their child's characteristics, beyond the basic understanding of what ASD is.

It is the unique characteristics of children with ASD that especially impacts educational transitions (Rous et al., 2007). For transition planning, both the commonalities with ASD and unique characteristics would be important to know, especially in terms of planning for services and supports in the classroom. Many researchers have suggested that schools should have a thorough understanding of a child's needs before transition planning even begins (Starr, Foy, & Cramer, 2001; Stoner, Angell, House, & Jones Bock, 2007; Tobin et al., 2012). For example, if a teacher does not understand a particular behaviour a child is exhibiting, they risk attributing it to other things, such as motivation (Tobin et al., 2012), which certainly impacts how they would intervene with the behaviour in the classroom. Ultimately, individualized transition planning is a

marker of high-quality transitions (Rosenkoetter, Whaley, Hains, & Pierce, 2001) and should be considered to be an essential component of the transition from early intervention into school.

The question of anxiety. Despite the hypothesis that children with ASD would experience greater symptoms of anxiety during the transition to school, especially since there have been documented elevations of anxiety in the literature (e.g., Gotham, Brunwasser, & Lord, 2015; Schroeder, Weiss, & Bebko, 2011; Simonoff et al., 2008; Witwer & Lecavalier, 2010), it was surprising that symptoms of anxiety were not consistently elevated for the transitioning children whose parents participated in second study. While some children demonstrated significant symptoms of anxiety that increased with the transition (Alex and Emmett), this was not the case for Magnus and Declan whose symptoms of anxiety actually improved (i.e., decreased) with the transition. Despite this, as reported by parents in both papers, all children experienced at least a degree of maladjustment when starting school. So why the discrepancy? It is possible that the small sample size in the second paper did not provide an adequate measure of symptoms of anxiety change during transition. It is also possible that the CBCL was not sensitive enough to detect symptoms of anxiety in children with ASD, which has been speculated in previous literature (Gjevik, Sandstad, Andreassen, Myhre, & Sponheim, 2015; Gotham et al., 2015; Kim, Szatmari, Bryson, Streiner, & Wilson, 2000).

Heightened levels of anxiety have been consistently documented in the ASD literature, particularly with older children (van Steensel & Heeman, 2017) and those with a higher IQ (Eussen et al. 2013; Gadow, Devincent, Pomeroy, & Azizian, 2005; Mayes, Calhoun, Murray, Ahuja, & Smith, 2011). Therefore, it is possible that the symptoms of anxiety in the current sample of children were not as obvious or apparent because they were all young in age (i.e., all under the age of 8 years and most below age 6). It is possible that anxiety in ASD is more

obvious when children are older, are better able to express themselves, and have insight into what is going on in their environment. For example, if a child is avoidant of other children and is bullied at school, they might not be as affected as a child who is interested in other children. Perhaps this awareness is key and not as much of a factor for younger and more impaired children with ASD. The fact that symptoms of anxiety are more common in youth with ASD is further supported by multiple research studies who have found that at least some youth with ASD have experienced symptoms of anxiety when transitioning from primary to high school (e.g., Fortuna, 2014; Hannah & Topping, 2012).

A distinction that should be made is that even though the children in the present study did not consistently experience elevated symptoms of anxiety, it does not mean that they did not struggle with the transition. As evidenced in both papers, all parents identified at least a degree of maladjustment in their child when they started school, so it is possible that maladjustment when transitioning to school does not always look like anxiety for these children. Regardless, whether it looks like anxiety or simply being out of sorts, children with ASD do experience difficulties adjusting and coping with new school placements (Dillon & Underwood, 2012; Fortuna, 2014; Makin, Hill, & Pellicano, 2017; Tobin et al., 2012). Many explanations for difficulties have been offered. For example, there are numerous situations in school that can elicit anxiety (Hannah & Topping, 2012) and school itself requires emotion regulation to adapt and be successful (Fortuna, 2014; McClelland, Morrison, & Holmes, 2000; National Governors Association [NGA], 2005), so children with ASD are inherently at a disadvantage because of the nature of their disorder (Fleury, Thompson, & Wong, 2015).

Cycle of child and parent emotional challenges. Even though anxiety was not pervasive in the current sample of children, emotional and behavioural problems were extensive.

It is important to note that psychopathology in ASD is generally considered to be unstable (Konst & Matson, 2014) and ASD symptoms can continue to impact functioning as they age (Kim, Freeman, Paparella, & Forness, 2012). For these reasons, the high level of symptomology is concerning and warrants access to supports even after children leave early intervention and start school. Based on findings from both studies, it is fair to assume that a child with ASD will bring some emotional and behavioural challenges with them to the classroom, however the level to which these symptoms will impact their functioning at school warrants individual evaluation.

One of the most palpable themes that emerged from the parent interviews was the level of anxiety parents themselves experienced. In regard to transition supports, this is especially important to consider because the parent perspective can be impacted by their own worries and anxiety (Fortuna, 2014) and parent stress can impact the effectiveness of certain interventions (Osborne & Reed, 2008). Because many of the children in the present studies experienced emotional and behavioural challenges and all parents experienced at least a degree anxiety or worry, the cycle of child and parent functioning cannot be discounted. Previous research has suggested that the emotional and behavioural symptoms of children with ASD might increase due to parental stress (e.g., Giovagnoli et al., 2015), while parental stress can also increase due to child functioning because they have less energy or emotional resources to support the child (Bauminger, Solomon, & Rogers, 2010). Therefore, child and parent stress could be considered to have a reciprocal effect on each other (Bauminger et al., 2010).

It is well documented that parents of children with ASD experience higher levels of stress compared to parents of typically developing children and children with other disabilities (Hayes & Watson, 2013; Quintero & McIntyre, 2011; Rao & Beidel, 2009). Some research has suggested that parent stress levels are higher in early childhood (Schieve, Blumberg, Rice,

Visser, & Boyle, 2007), which is the age range when children with ASD typically transition from early intervention programs into school. Also, parent stress has been associated with increased emotional and behavioural problems (Giovagnoli et al., 2015; Lecavalier, Leone, & Wiltz, 2006; McStay, Dissanayake, Scheeren, Koot, & Begeer, 2013), implying that the more symptoms a child exhibits, the greater the impact it will have on parents. This further highlights the importance of monitoring the emotional and behavioural functioning of children with ASD because parents find educational transitions to be stressful (Parsons, Lewis, & Ellins, 2009; Tobin et al., 2012), regardless of their child's emotional and behavioural functioning pre-transition. Professionals should ensure that parent stress levels do not increase too much during the transition, resulting in it being more difficult for them to be involved. Ensuring that parents have access to social support can help moderate parent stress (Dunn, Burbine, Bowers, & Tantleff-Dunn, 2001), so it is not surprising that many parents in the current studies sought out additional support on their own.

What is clear from the results of both papers is that the transition to school requires a focus on the prevention of challenges, as opposed to playing catch-up and trying to intervene once the child is in school. The initial transition to school has been shown to impact later academic, social, and emotional functioning for typically developing children and children with special needs (Entwisle & Alexander, 1998; Lloyd, Irwin, & Hertzman, 2009) and considering the complexity of the transition and the needs of children with ASD and their families, it is essential that transition planning occur with the use of recommended transition practices. In fact, even doing as little as visiting the school ahead of time can result in positive outcomes for the child and their parents (Schulting, Malone, & Dodge, 2005). Ultimately, if adequate and appropriate planning is not completed ahead of time, the responsibility is left to parents to

navigate the system and support their child's needs, which might increase their own stress level and consequently impact their child, be it by their interactions with their child or by not being as involved or engaged with the transition. To further evaluate the complexity of the transition, the following section will integrate the findings with the ecological framework proposed by Rous et al. (2007).

Integration with the Ecological Framework

To better understand the educational transitions of children with ASD, the ecological framework proposed by Rous et al. (2007) was used as a guide for both papers. Based on research literature, an ecological lens, and theoretical approaches to transitions, the framework outlines the transition from early intervention to school for any child with a disability, not ASD specifically, however the systems and stakeholders were considered to be the same. The ecological framework asserts that there are variables that impact the transition through many interactions in the ecological context; child and family factors, the specific program, community, and state factors that impact child and family outcomes. Overall, it is the interaction between different stakeholders and systems that impacts the success of a transition.

The ultimate goal of transition is to have the child successfully adjust to school (Rous et al., 2007). Both studies revealed that various factors involved in the transition impacted its success. Quantitatively, the emotional and behavioural functioning of children with ASD indicates challenges and this might make adjustment to school more difficult for a child. Qualitatively, all children reportedly demonstrated at least some maladjustment once they initially started school, but these children started to adjust over time. Additionally, parents appeared to have a difficult time adjusting to the transition themselves which, in-turn, could have impacted the children.

Level one of framework. The current study did not specifically look at the first level of the ecological framework that claims the factors related to individual programs, service systems, and state policies interact with child and family factors, however variables related to this level did emerge. In regard to child-specific factors, Rous et al. (2007) state that "the particular strengths and needs of individual children must be considered with planning for transition" (p. 139), including characteristics like temperament and disability-related factors. The findings from both studies support this aspect of the Rous et al. (2007) ecological framework. Children who participated in the second study demonstrated that while there were trends in symptomology, no child's emotional and behavioural profile was exactly the same. That being said, professionals could expect at least a degree of emotional and behavioural challenges, but it will take for an individual evaluation to understand exactly how a child will adjust and to what extent their symptomology will impact their functioning. This was further supported by the first paper, where parents consistently discussed their child's individual needs and the importance of schools truly understanding their child.

With regard to family-specific factors, Rous et al. (2007) discussed the importance of family involvement in the transition process, as it impacts their ability to interact with the other systems involved in the transition. Early intervention programs for ASD typically require a high level of parent involvement, whereas this is not always the case in school settings. This change in level of involvement was particularly evident in the first study. Despite desiring a high level of involvement, parents frequently complained that their level of involvement was drastically reduced once the school was involved. According to Rous et al. (2007), parental experience can influence their expectations of the transition and the overall nature of their involvement. Since parental involvement has been identified in the literature as an essential component of

educational transitions for children with ASD (Bailey, 2012; Brandes, Ormsbee, & Haring, 2007; Denkyriah & Agbeke, 2010; Hanson et al., 2000; Janus, Lefort, Cameron, & Kopechanski, 2007; Levy & Perry, 2008), having less parental involvement in school is counterintuitive. Similar to the recommendations made in the first study, this suggests that the more we can help parents feel knowledgeable about their child, heard, and involved in the transition process, the more they will participate and be able to adapt to the new school placement (Pang, 2009).

The importance of community specific factors was also evident in both studies. According to Rous et al. (2007), children and families in early intervention should be directly supported by service providers and schools during this kind of educational transition. These provider factors were discussed by parents in that they certainly felt supported by early intervention staff, while only some felt supported by school staff. The main barriers to feeling supported was the school staff's knowledge of ASD and the individual characteristics of their child, and what strategies were being used to support the child in the classroom. To feel supported, parents discussed a need for schools to have a thorough understanding of their child, including their emotional and behavioural needs, for them to conduct an evaluation of school staff's knowledge and skills to determine if training is needed or if skill training was needed for the child. For this level of understanding to happen, information sharing must start as soon as possible.

Additionally, regional factors outlined by provincial governments came to light. In Canada, provincial governments are in charge of the general supervision of transition programs because they create the policies and programs for early intervention programs and education systems. These policies and programs influence the quality of transition services and the climate that ensues. Further, it can impact how service providers work together. In Alberta, there is no

specific policy or program to guide this particular type of transition, but in Ontario, the province

has implemented a program called *Connections for Students* to help facilitate and set standards of

practice for successful individualized transitions from early intervention programs into school

systems. Therefore, the transition process in Ontario is likely more consistent for families than in

Alberta; the process or steps in the process should generally be the same for each child, making it

more predictable for professionals and families.

At face value, it might be assumed that these various provincial programs (or lack

thereof) would have impacted the results of the current study, but this did not explicitly make a

difference in the findings. With regard to parent experiences, there were no obvious differences

between parents from Alberta or from Ontario, particularly because not all parent participants in

Ontario had access to the *Connections* program and some of the parents who did participate in

the *Connections* program still experienced barriers or set-backs. Regardless of participation in

the *Connections* program, all parents reported at least a degree of maladaptation in their child

and identified similar transition practices that influenced the success of their child's transition.

The most noted transition practices included transition planning and open communication, and

thus, should be included in any educational transition program or policy.

Additional provincial factors that were discussed by parents included concerns over

funding differences. It is common knowledge that the level of funding for specialized

intervention services is different for early intervention compared to education systems. The

nature of an early intervention program is to provide intensive and early access to support

professionals, whereas access is often limited or spread out amongst schools. Parents in the first

study discussed the desire to have their own privately hired professionals come to the school to

support school staff, with their consent, however requests were consistently denied by schools. It

is possible that there are politics involved in bringing private service providers into the school when schoolboards often have their own professionals on staff, but unfortunately, the professional to student ratio is typically much larger than would be found in early intervention and thus, would delay the intensity and frequency of support for these children at school. It would be beneficial for schools to consider reviewing their policies because parents appeared frustrated and stressed about access to specialized professionals at school, either because the services were limited or because the waitlist was too long.

In consideration of the various contexts involved in the first level of the ecological framework, it is apparent that there are many stakeholders involved in the transition process. The papers included in this dissertation lend support to the interaction of child, family, program, and provincial specific systems. Even though the two papers evaluated individual systems in the transition, particularly child and family specific factors, what became apparent was how these factors did not occur in isolation. For example, parents consistently discussed their child's needs due to their diagnosis and individual characteristics (child factors). These characteristics were further discussed in relation to more program specific factors, such as how the school should be able to understand and support their child's diagnosis and characteristics.

Level two of framework. The results of the current study are also related to the second level of the ecological framework, as it is focused on the transition process itself. In the second level, it is posited that there is a profound interaction between critical interagency variables, transition practices, and child and family outcomes and that this interaction is non-linear. With regard to critical interagency variables, the parent experiences in the current studies highlight communication and relationships between the child, family, service providers, and schools. Parents discussed the importance of open communication between all those involved, especially

between parents and school staff. According to parents, open communication indirectly impacts the child because the professionals working with them are better able to understand and support their needs in the new environment. Open communication also impacted parents directly because it helped to moderate some of their own anxiety and worry about the transition; open communication clarified the unknowns and helped them feel more comfortable with the process.

The importance of including recommended transition practices was further highlighted in both studies. In the ecological framework, Rous et al. (2007) discussed a group of recommended transition practices, strategies, and activities that have previously resulted in successful transitions, such as the use of targeted instructional supports from early intervention programming and for children, parents, and early intervention program staff to visit the school ahead of time. Parents in the current study supported the use of these transition practices, particularly early planning and open communication, and they emphasized how these practices positively impacted not only child adjustment, but parent stress and adaptation.

Finally, the results of the current studies emphasize child and family preparation and adjustment, which is one of the most important aspects of the second level of the ecological framework. Rous et al. (2007) described child and family adjustment as having the greatest influence on positive outcomes for the child once in school and acknowledged that there is a link between preparation and adjustment. Therefore, preparation and adjustment of the child and family is considered to be the primary goal of the whole transition process. The results of both studies can be considered a snapshot of the current state of educational transitions for young children with ASD moving from early intervention to school.

The findings provide additional insight into how children with ASD are able to adjust to the many changes involved in this type of educational transition. The sample of children

demonstrated similar emotional and behavioural symptoms to "typical" children with ASD, but each CBCL profile was unique. Despite this, as a group, they demonstrated high levels of emotional and behavioural problems, which puts them at risk of having impaired functioning compared to typically developing peers at school. Therefore, even though we were unable to conclude that psychopathology was more elevated than expected for all children with ASD, the fact that there were significant and unique elevations suggests that teaching specific pre-requisite skills and targeting each child's unique emotional functioning before the transition would facilitate child preparation and adaptation.

The current studies also highlight the challenges involved in parent adjustment and overall preparation. For preparation, Rous et al. (2007) recommends involving families early, such as providing them with pre-requisite skills they can work on with their child at home. However, the parents in the first study reported that they were typically doing this themselves; nobody instructed them on what to teach their children. What especially helped parents' adjustment was when parents were able to advocate for their child, when there were fewer unknowns about the transition process, and parents had access to social support.

Rous et al. (2007) explained that early markers of success in the second level of the ecological framework were that the child is positive about school, demonstrates growth in their skills, the family values school, and there is increased parent involvement at school. We are unable to conclude that all markers were evident in the current studies, though it was obvious in both studies that parents wanted to be highly involved in their child's schooling, but barriers like lack of communication got in the way. Furthermore, some parents reported that their child was happy to go to school and some even made improvements in skills (e.g., increased communication skills). It is possible that if the concept of collaboration and communication in

early intervention could also be transitioned to schools, that transitions would be more frequently viewed as successful.

Recommendations

Ultimately, the goal of transitioning from early intervention to school is for children and families to be able to prepare and adjust to the new school placement; it will require a bit more groundwork on the part of service providers and schools to ensure that this happens. Additionally, preparation and adjustment to the new setting requires early planning and a collaborative team approach. To support children and families through the transition from early intervention into school, based on the results of the current studies, the following recommendations might prove to be beneficial:

- Part of preparation is knowing the child and ensuring they have the necessary skills to cope with and self-regulate at school. Using broadband measures like the CBCL before the transition can provide the transition team with useful information about a child's particular tendencies and can guide what pre-requisite skills should be targeted while the child still has individualized and intensive support in early intervention. It would also identify if additional support, like individual counselling or medication, are warranted. For example, if attention difficulties emerge as being a challenge for a particular child, then service providers can start working on increasing sustained attention skills in early intervention, while the school could structure the classroom in a way that reduces distractions. Standardized measures like the CBCL can provide valid and reliable data on the child (Pang, 2010), however;

- Professionals should also collect as much information as possible about the family, such as specific expectations, needs, or concerns. The parent perception of their child is more

authentic (Pang, 2010) and might provide alternative ways of interpreting a child's behaviour during the transition. Information about the child, like skills mastered and those needing to be acquired, and information about the family such as family composition, who will be able to participate in the transition, family schedules, access to resources, preferences, and goals should be obtained (Pang, 2010). Information about the family can help the transition team to predict how a child might adjust to a new environment and it will certainly benefit the receiving program to know more about the child and family they are receiving.

- Talk to parents because they want to feel heard and involved. Parents are seeing changes in their child's emotions and behaviours during the transition to school and seeing changes in themselves, such as increased stress, which does not necessarily come across on a standardized measure like the CBCL. Talking to parents will allow them to provide insight into the subtle changes they are observing in their child and family and subsequently, service providers and schools can implement appropriate supports or strategies sooner.

- Schools should consider allowing private service providers to support the child at school if needed. These professionals have a history of working with the child and family and can provide valuable training to school staff. Children appear to be waiting long periods of time to access specialized professional services like speech and language pathology and school staff typically do not have the knowledge or training to support all of the emotional and behavioural needs of these children in the classroom themselves. If this is not possible, schools should at least activate professional services before the child officially starts school so that the child is not waiting unnecessarily for services.

Limitations and Future Research

The current study has a strength in that it provides a parental perspective of children with ASD during the transition from early intervention into school, which was lacking in the transition literature (Dillon & Underwood, 2012). Despite this, few potential limitations exist. First, the sample sizes are fairly small and uses a clinically-recruited convenience sample. This limits generalizability to other children with ASD, particularly those who are not connected to services. While the results may not be generalizable to children with ASD who are not receiving formal services, it is informative to know what key experiences could possibly impact their functioning once they start school. Furthermore, because early intervention services, level of funding, and policies and procedures can vary from province to province, the generalizability of the results may be unique to Alberta and Ontario contexts. It will be up to the users of this research to determine whether or not the results would be applicable to their particular case and context.

Conversely, the population from which the samples were recruited is in actuality quite small. For instance, only 3600 children were receiving support through the Family Support for Children with Disabilities Program (FSCD) in 2014-2015 in Alberta (Alberta Human Services, 2015) and of those, only a portion were transitioning to school at any given time. Therefore, it was difficult to recruit a high number of participants who met eligibility criteria, which influenced the methods of inquiry and analyses utilized. Also, at the time of recruitment, the Ontario government implemented widespread changes to the provincial ASD intervention program, which resulted in very few children actually transitioning out of early intervention and many government funded programs were subsequently hesitant to participate in the study.

This study is also somewhat limited by only seeking the parent perspective. Because various professionals are involved in the transition at any given time and the fact that some parents have to coordinate the transition themselves, seeking service provider and teacher report were not a priority. However, this does not negate the fact that capturing an understanding of a child's behaviour within the context they are transitioning to (i.e., school) would certainly be valuable. In addition, acquiring the child's own report of emotional and behavioural functioning and adaptation, as well as the personal narrative of their transition experience would undoubtedly be valuable in future research. This endeavour would be complicated by several factors including the young age of the sample, the communication difficulties inherent to ASD, and the questionable validity of self-report measures of psychological functioning in young children. Another limitation related to only acquiring the parent perspective is that the high level of parent stress might have biased their responses. At this point, we are unable to speculate to what degree this might have impacted the results of the current studies, but future research could seek to further explore the relationship between parent stress and child functioning during the transition from early intervention to school.

The transition from early intervention into school is not an isolated event and future research should seek to use more long-term studies to explore it. While the findings of the current study are specific to the transition period, we still do not know if the children or parents were better able to adapt to school after a longer period, such as the 12-week transition period suggested by Rous et al. (2007). Focusing on just the outcomes and what works for which child will further support the use of individualized transitions. Future long-term research should also examine more on-going outcome variables such as level of engagement, adaptation, and

continued growth and development (Rous et al., 2007), all of which were difficult for children in the initial weeks of starting school.

Finally, based on the results, future research should seek to further investigate not only the emotional and behavioural functioning of children with ASD during times of transition, but the anxiety and worry that parents also reportedly experience. In the current studies, parents reported varying levels of anxiety, ranging from anxious thoughts or worries to reported panic attacks. To quantify parental anxiety related to transition, future research could use a measure like the Parenting Stress Index (PSI; Abidin, 2012), a measure designed to evaluate stress in the parent-child system, including child characteristics, parent characteristics, and situational or demographics life stress. The addition of an interview could be beneficial to add further context and explanation to the difficulties parents report on more quantitative measures. As previously discussed, it is possible that parent anxiety during the transition has a reciprocal effect on how their child handles the transition, thus stressing the importance of also gaining a better understanding of the nature of parent anxiety during times of transition.

Conclusion

In conclusion, this paper-based dissertation contributes to our understanding of the impact of emotions and behaviours on the transition from early intervention to school for children with ASD and their families. In particular, systemic variables were identified that could impact child and family preparation and adaptation during the transition. These variables included child and family specific factors such as emotional and behavioural functioning, program factors such as level of understanding and competence, and provincial factors such as policies and funding structures. It was evident that the recommended practices of early transition planning, open communication, and collaboration were essential to the success of transitions

because they granted parents, service providers, and school staff the ability to better predict how a child would be able to adapt and cope with their new school placement. This research is only the first step in better understanding how these systems and variables influence the transition from early intervention into school.

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Appendix A

Interview Protocol

Script:
"Thank you for your participation today. I appreciate your willingness to talk about your experiences with your child's transition to school. The purpose of the interview today is to help me understand what the transition process what like for you, your child, and to get a sense of your overall point of view. This interview should take approximately 60 minutes in which I will ask you various questions about the transition.

"If there are any questions that you feel uncomfortable answering, please do not hesitate to let me know. This interview is strictly voluntary and you can withdraw at any time. I will be using an audio recorder to make sure I do not miss any details and I will also be taking notes during the interview. If it is okay with you, I will be audio-recoding this interview to help me transcribe what was said. This interview/interview notes will remain confidential and there will be no identifying information on any of the material. I will use the pseudonym for your child. After this interview, I will write up a transcript of the interview and I will go through it with you to ensure I have fully captured your experience and point of view. Once you have given your feedback, the audio recordings of the interview will be destroyed. Do you have any questions or concerns before we begin?"

1. Tell me about your child
2. Overall, how is your child doing at school?
    a. Changes in behaviour or emotions
    b. Current concerns

Script
"I am now going to ask you some specific questions about your child's transition from early intervention into school. I want you to try to remember what it was like from the first meeting where the transition was discussed to when your child was no longer accessing early intervention and was in school full-time"

Parent Involvement
3. What was it like being the parent and/or guardian during the transition?
    a. What parts of the transition process did you feel included/excluded from?
4. How were your opinions and concerns addressed?
    a. By early intervention
    b. By school staff
5. In what way did your level of involvement in the transition impact your child?

Collaboration
6. How do you feel about the collaboration between you and the transition team?
    a. If no, how could this have been facilitated?
    b. If yes, what helped facilitate this collaboration?
7. In what way did the transition team communicate with each other?
    a. E.g., planned meetings

8. In what way did the collaboration and communication between you, the school, and early intervention impact your child?

Planning

9. When did transition planning start?
10. What did transition planning look like?
    a. Who participated
    b. Roles and responsibilities
    c. Timelines
11. Can you talk about how transition planning impacted your child?

Preparation

12. Describe your child's level of preparation for the transition.
    a. Can you elaborate upon what your child would have needed to be prepared? (e.g., supports, pre-requisite skills)
13. Describe your level of preparation for the transition
    a. Can you elaborate upon what you would have needed to be prepared? (e.g., supports)
14. In what way did preparation for transition impact your child?

Post-Transition

15. Did you access any other supports during the transition? After the transition?

Conclusion

16. Is there anything else that might have impacted your child during the transition process?

Concluding Script

"Thank you so much for your participation in this study. I appreciate your willingness to discuss your experiences with your child's transition."