Journal on Developmental Disabilities
Le journal sur les handicaps du developpment
JoDD
Volume 14, Number 1, 2008

Transition of Children With Autism From Intensive Behavioural Intervention Programs Into the School System

Authors

Alissa Levy
Adrienne Perry

Department of Psychology
York University

Correspondence

Alissa Levy
ajlevy@yorku.ca

Keywords

autism
transition
Intensive Behavioural Intervention
school

Abstract

This study concerns the issue of the transition of children with autism from intensive behavioural intervention (IBI) programs to school. Literature on the transition of children with autism is sparse, and anecdotal evidence suggests there are significant challenges. The current study used survey methodology to examine the beliefs of IBI program and school system staff about this transition, and the similarities and differences between their beliefs and experiences. It was found that, in some respects, the transition beliefs of the two groups were similar. However, there were notable differences between the ideal views of transition processes and actual experiences of participants in both groups, as well as some barriers to the process. Directions for future research and implications for practice are discussed.

This study concerned the issue of transition of children with autism from Intensive Behavioural Intervention (IBI) programs into the school system. Transition to school is a significant event for all children and their families. Studies have shown that some children may experience increased stress levels and somatic and psychological symptoms during the transition to school. This time is also stressful for parents as this is often the first time that a large part of their child's day is organized without their input (Pianta & Kraft-Sayre, 2003). For children with developmental disabilities (DD) and their parents, this transition can be even more stressful. In addition to the concerns cited above, these parents and their children are faced with additional challenges, such as navigating the Individualized Placement and Review Process of the Ontario education system and ensuring appropriate services within the school system (Hundert, 2004). In light of these challenges, the Ministry of Education in Ontario has specific

policies regarding the placement and programming to which these children are entitled, to ease that transition through the promotion of inclusion (Ontario Ministry of Education, 2004; Winter, 2002). Inclusion refers to the integration of children with DD into school with their typically developing peers. Inclusion affords the opportunity to learn skills in real-life contexts and participate in a more socially responsive and facilitative environment (Turnball & Blacher-Dixon, 1981).

However, there are several criticisms of the realities of inclusion. There are policy barriers to effective inclusion among preschoolers, including variation in the quality of programs, limited resources for provision of individualized education, and lack of experience/expertise of school staff regarding developmental disabilities (Bailey, McWilliam, Buysse, & Wesley, 1998; Burack, Root, & Zigler, 1997; Odom, 2000; Odom, McConnel, & McEvoy, 1992; Simpson, de Boer-Ott, & Smith-Myles, 2003; Wehmeyer, Sands, Knowlton, & Kozleski, 2003).

In addition, children with autism, in particular, face unique challenges when transitioning into the school system that are created by the nature of their disorder. The social deficits associated with autism (e.g., children with autism do not imitate peers, their social interaction and communication skills are atypical or absent, they do not initiate play, and their play skills are often inappropriate for their developmental level) make it difficult for them to learn from their peers. Consequently, children with autism must be taught imitation of peers, appropriate social responses, and play skills so that the potential benefits inherent to inclusion may be realized (Cole, Mills, Dale, & Jenkins, 1991; Hundert, 2004; Hundert, Mahoney, Mundy, & Vernon, 1998).

Many children with autism in Ontario are currently receiving IBI. IBI is a publicly-funded program which provides direct, intensive services (20 to 40 hours per week) based on systematic behavioral teaching methods to help build the child's skill sets (Perry, 2002). For children with autism receiving IBI, challenges related to transitions are exacerbated due to the discrepancy between the IBI program and the school system (Hundert, 2004; Hundert & Walton-Allen, 2005; Wynberg et al., v. Ontario, 2004). The most striking differences include student-teacher ratios, level of reinforcement, staff training and structure of programming (Hundert, 2004; Hundert & Walton-Allen, 2005).

Little to no empirical work has been conducted on the transition of children with autism from IBI programs to school. However, anecdotal evidence suggests that there is considerable dissatisfaction on the part of parents, IBI program staff, and school staff. Their concerns relate to the variable degree of collaboration and cooperation between IBI and school staff, the perceived resistance of the school system to incorporate elements of IBI into its curriculum, and the inability of schools to provide an adequate learning environment for children with autism (Wynberg et al., 2004). However, much of this information is anecdotal; empirical studies are needed to address the attitudes and beliefs of IBI and school staff about transition and their experience of this process.

The current study was designed to begin to address this gap in the literature by examining (1) the similarities and differences in the beliefs of IBI and school staff about transition; (2) the similarities and differences between the two groups' views of how the transition process should be, ideally, and their actual experience.

Method

Participants

Prior to data collection, ethics approval was obtained from the Human Participants Research Committee (HPRC) at York University and participating IBI regional programs and school boards.

IBI staff were recruited through regional IBI treatment agencies. Four (of the nine) regional IBI programs were asked to participate in the study. Of these, three agreed to take part; one program declined because they felt the topic was too contentious. A total of 35 individuals were identified as appropriate for this study as they would be involved in programming for the child and in helping plan for his/her transition. Of these, 26 replied (74%), including senior therapists (n=16), transition coordinators (n=2), clinical supervisors (n=5), and Autism Spectrum Disorder (ASD) consultants from the IBI program's school support program (n=3).

A total of eight school boards in rural, suburban, and urban communities were contacted to participate in the study. Of these, three agreed to take part. A total of 37 individuals were identified as being appropriate for this study as they would be involved in the transition of the child into the school system. Of these, 11 agreed to participate (30%), including 3 educational assistants (EA), 1 behavior consultant, 1 member of the school board autism team, 3 senior school board personnel, 1 principal, and 2 speech and language pathologists.

Measures

Two questionnaires were developed for the purpose of the study. Prior to the design of the questionnaire, meetings were held with the transition coordinators of regional programs to better understand how IBI program staff plan for transition, their role in the transition process and post-transition. Similar discussions were held with several school board consultants.

Transition Beliefs Inventory (TBI). The TBI was designed to ascertain what elements respondents believe are important to the transition process. The measure includes 37 items grouped into five subscales: Pre-requisite Skills (8 items), Individualization (7 items), Collaboration and Cooperation (8 items), Family Involvement (7 items), and Attitudes toward Inclusion (7 items). The scales were developed based on transition "best practices" in the IBI literature (Chandler, 1992; Dunst, 2004; Handleman, Harris, & Martins, 2004; Hemmeter & Shuster, 1994;

Table 1. Subscales and Sample Items of the Transition Beliefs Inventory (TBI)

Subscale	*Sample items*
Pre-requisite Skills	"I feel that it is important for success in the classroom that the child display social behaviors before making a transition"
Individualization	"In planning for transition, it is important to address the individual strengths and weaknesses of the child"
Collaboration and Cooperation	"The more information shared between school staff and IBI staff, the smoother the transition for all involved"
Family Involvement	"The participation of parents should be welcomed and encouraged in transition issues"
Attitudes Towards Inclusion	"I believe it is the right of every child, regardless of their diagnosis or behavioural profile, to be educated in a regular classroom"

Hundert, 1982; ISCD, 2000; Perry, 2002; Pianta & Kraft-Sayre, 2003; Powers, 1992) and the literature on attitudes towards inclusion (Burack et al., 1997; Odom, 2000; Odom, McConnel, & McEvoy, 1992). Participants were requested to state their agreement with a series of statements on a 5-point Likert scale, from strongly agree to strongly disagree. See Table 1 for sample items.

The internal consistency of the subscales was assessed using Cronbach's α. Three of the subscales were found to be sufficiently reliable (Prerequisite Skills: α=0.87; Collaboration and Cooperation: α=0.77; Attitudes Towards Inclusion: α=0.70). However, the Individualization and Family Involvement Subscales had poor reliability (α=0.16 and α=0.49, respectively) and were dropped from the measure.

Transition Practices Questionnaire (TPQ). The TPQ was designed to assess the respondents' views of how the transition process should be, hypothetically or ideally and, in addition, what their actual experiences had been. Each of the "hypothetical" and "actual" questions were asked regarding the three "Wh's" of transition planning:

When transition planning should/does begin (less than 2 weeks, 2 weeks to 3 months, 4 to 6 months, 7 to 12 months or 13 to 15 months prior to transition);

Who should be/is involved (IBI senior therapist, IBI transition coordinator, parents, receiving teacher, EA, school board personnel, principal, IBI program ASD consultant or a member of the school board autism team);

What activities should be/are included (identifying important skills for the child to succeed in the school and targeting these skills in IBI programming; adjusting the child's protocols so they can be transferred to the school environment; helping parents find additional community supports; visiting the school prior to transition; notifying the school as early as possible about the transition; explaining the school board's policies of inclusion and meetings to the IBI and school staff).

There are two versions of the TPQ, one for school staff and the other for IBI staff. The two versions of the questionnaires targeted identical information with variations in wording to fit the setting. Both versions include the same three sections on the hypothetical process of transition, the actual experience of transition, and an open-ended set of questions on the strengths and barriers to effective transition planning. This questionnaire was developed through consultation with professionals in each setting in order to ensure that the questions asked would target the correct information regarding transition practices and, thus has face validity. Results from this measure are in the form of frequency data across groups; psychometric properties cannot be computed.

Procedure

Both the TBI and the TPQ were mailed to participants from schools and IBI programs. All participants received a package that contained a letter explaining the purpose

Table 2 Mean Scores of School and IBI Participants on the Transition Beliefs Inventory (TBI)

Scale	*IBI M(SD) (n = 26)*	*School M(SD) (n = 11)*	*t*	*p*
Prerequisite skills	30.31 (5.22)	23.45(4.89)	-3.72	0.001
Collaboration & cooperation	31.82 (2.53)	26.55 (4.37)	-3.90	0.002
Attitude towards inclusion	29.27 (3.56)	31.27 (3.23)	1.61	0.117

of the study, a consent form, a copy of the two questionnaires and a return envelope in which to send the signed consent form and completed questionnaires.

Results

TBI scores were used to compare the beliefs of school and IBI staff on important transition components. As shown in Table 2, results indicate that IBI participants have a stronger belief in the importance of teaching Prerequisite Skills and Collaboration and Cooperation as a means to facilitate the transition process. There was no significant difference on the Attitude Towards Inclusion subscale, although the mean score for school participants was slightly higher, which is the opposite pattern from the other two subscales.

On the TPQ, participants were asked *when,* hypothetically, planning should begin and when, in their experience, it did begin. A Pearson chi-squared analysis demonstrated a significant difference between when school and IBI staff believed transition planning should begin ($\chi^2(3)=8.94$, $p=0.03$). As shown in Figure 1, the majority of school staff believed that transition planning should begin within the 6 months prior to the time that the child enters the school system. A significant difference was also found in the *actual* transition experiences of school and IBI participants ($\chi^2(3)=16.79$, $p=0.002$). School participants stated that transition planning was occurring closer to the time the child enters the school (less than 6 months prior to transition) and IBI staff stated that their transition planning began much earlier (at least 7 months prior to the time the child enters the school).

Participants were asked *who* they thought should be involved in transition planning. No significant difference was found between the hypothetical views of both groups ($\chi^2(9)=10.12$, *ns*). However, some interesting patterns were noted in the data as shown in Figure 2 [see page 6]. For example, the majority of IBI participants believed that IBI ASD Consultants and Transition Coordinators should be involved in transition planning, compared to less than a third of school participants. No significant differences were found between the hypothetical views and actual experiences of who should be involved in transition planning for either group (school: $\chi^2(9)=9.41$, *ns*; IBI: $\chi^2(3)=10.60$, *ns*). However, some interesting patterns were noted in the data. Although stating that, hypothetically, parents should be involved, less than 10% of the school staff

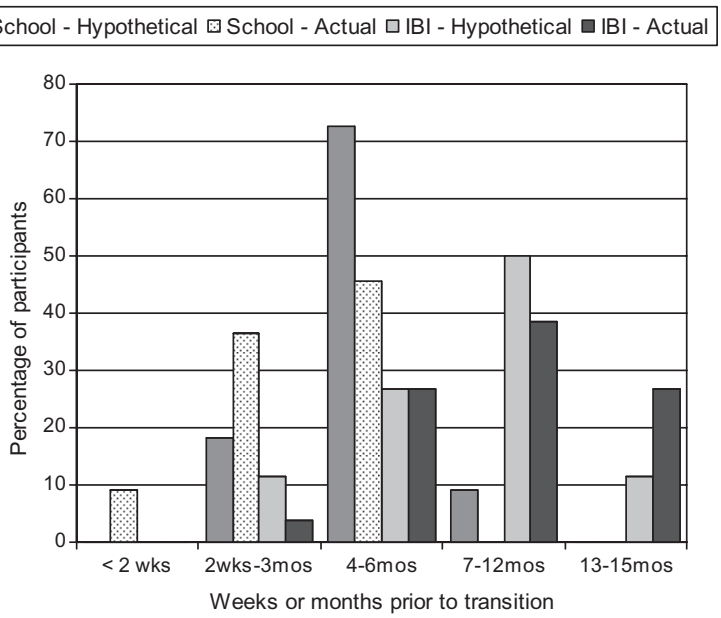


Figure 1. Time Frame in Which Transition Should and Does Take Place According to the Two Groups of Participants (IBI n= 26; School n= 11)

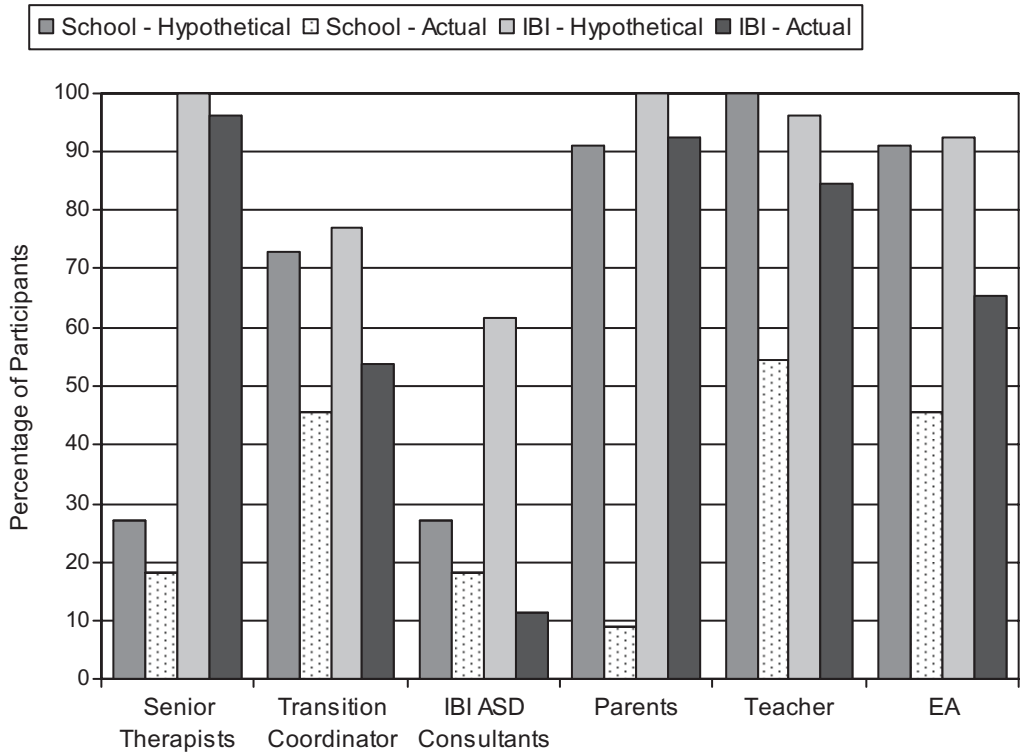


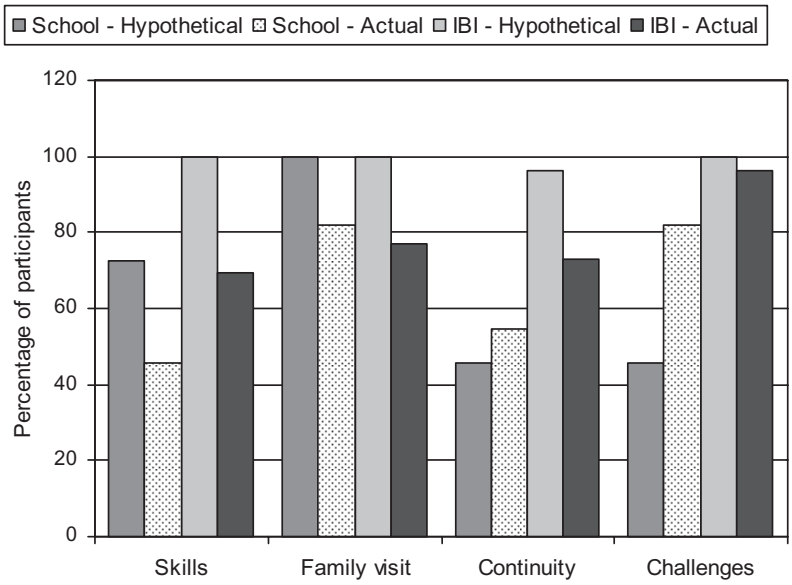
Figure 2. Roles of the Individuals Who Should Be and Are Involved in Transition According to the Two Groups of Participants (IBI n= 26; School n= 11)

reported that, in their experience, parents were actually included in this process. In addition, although all of the school staff hypothetically endorsed the participation of teachers and educational assistants in transition planning, in actuality they reported that only approximately 55% were involved.

Finally, participants were asked *what*, hypothetically, they thought should be involved in planning for transition. No significant differences were found in the hypothetical views of school and IBI staff ($\chi^2(10)=5.68$, *ns*). However, some interesting differences were noted in the data as shown in Figure 3 [see page 7]. All of the IBI staff reported that it was important to target prerequisite skills for the classroom compared to a little over half of school participants. In addition, over 95% of IBI staff compared to 46% of school participants reported that it was important for the IBI and school staff to meet to address challenges that the child may face in school. No significant differences were found between the hypothetical views and actual experiences of either group of participants (school: $\chi^2(8)=4.23$, *ns*; IBI: $\chi^2(3)=6.04$, *ns*) or between the actual experiences of IBI and school staff ($\chi^2(11)=2.58$, *ns*). However, it is interesting to note that 80% of the school staff have met with IBI to address challenges the child may face, despite less than half of these participants rating this as an important element of transition planning.

Discussion

Both IBI and school staff agreed that transition planning should and does occur. However, it was the belief and the experience of IBI staff that transition planning should and does begin earlier. This discrepancy makes sense in light of



Skills: Identifying the target skills necessary for the child to succeed in the classroom
Family visit: Child and the family should visit the school prior to his/her transition
Continuity: IBI staff and school staff should meet to ensure the continuity of programs and goals
Challenges: IBI staff and school staff should meet to address any challenges the child may face

Figure 3. Activities and Processes That Should Be and Are Involved in Transition Planning According to Two Groups of Participants (IBI n= *26; School* n= *11)*

school enrolment procedures. Typically, in Ontario, parents are required to enroll their children in public schools a minimum of five months prior to the start of the school year (TDSB, 2006). It is only after a child is registered that the school board can begin preparing for transition. According to the trend in our data, the optimal time for transition planning to occur with the participation of both school and IBI staff is 4 to 6 months prior to transition.

The transition literature emphasizes the importance of identifying and teaching skills and behaviours that are critical for the child's success in the school setting (Chandler, 1992; Handleman, Harris, & Martins, 2001; Hundert, 1982; Perry, 2002; Pianta & Kraft-Sayre, 2003; Powers, 1992). The results from the current study indicated that IBI staff believed significantly more strongly than school staff in the importance of teaching these skills. It is surprising that school staff did not place more of an emphasis on this criterion as a lack of these skills is cited in the literature as one of the major influences on teachers' social response to students (Cook, 2001; Cook, Tankersley, Cook, & Landrum, 2000; McGregor & Campbell, 2001; Pavri & Monda-Amaya, 2001; Robertson et al., 2003). However, despite the lower emphasis, the data reflects that half of school staff reported that identifying necessary target skills was involved in transition planning.

Though not statistically significant, school staff had a slightly stronger belief in inclusion as compared to IBI staff. In Ontario, school boards have the policy that supports the inherent right of all children to free and appropriate educational programs (Ontario Ministry of Education, 2004). This policy suggests that, regardless of skill or ability, all children are welcome in the school system. Despite the slight discrepancy in level of belief, both school and IBI staff cited positive attitudes towards inclusion as an important factor to successful transition.

There were no reported differences between the beliefs of school and of IBI staff regarding the importance of individualizing the transition process to the needs and abilities of the child. In order

to individualize the transition process, both IBI and school staff endorsed that: the child's protocols, self-help routines, etc., should be adjusted to match the school environment and school and IBI staff should meet to ensure continuity of programming goals. IBI staff also emphasized the importance of meeting with school staff to discuss challenges the child may face. This is in keeping with the conceptualization of individualization in the literature (Hundert, 1982; Pianta & Kraft-Sayre, 2003). There were, however, discrepancies in the way participants experienced the individualization of the transition process.

Both groups agreed that parents should be integrally involved in transition planning. However, in reality, there were discrepancies in the degree of family involvement. Very few of the school staff reported that parents were actually involved in transition planning as compared to the vast majority of IBI staff who reported the involvement of parents.

IBI staff believed significantly more strongly than school staff in the importance of collaboration and cooperation between the two systems to facilitate the transition process. This construct is cited in the IBI literature and the Ontario program guidelines as an important transition practice (Hundert 1982; Pianta & Kraft-Sayre, 2003; Rous, Hemmeter, & Shuster, 1994). The degree of collaboration and cooperation that should take place between IBI and school staff was the largest point of discrepancy between the two groups. This was true on the specific questions as well as the open-ended questions.

Both IBI and school staff reported that communication is an important factor in successful transition planning. However, in their ideal view of transition, IBI staff endorsed the participation of a wider range of both IBI and school staff in planning. School staff reported a much more limited role for IBI staff. This suggests some resistance to including IBI staff and/or likely a lack of understanding of their roles on the part of school staff.

From the perspective of the school staff, a major barrier to transition planning was the incompatible philosophies of IBI programs and schools. School staff viewed IBI as an intervention focused on the behavior of the child, whereas schools are focused on education. This misunderstanding of the nature of IBI poses a serious obstacle to understanding the role that IBI staff play in the child's education and, therefore, in transition planning.

This opposition to IBI involvement was seen in the reported experience of IBI staff. These participants reported large discrepancies between the hypothetical and actual inclusion of IBI staff. From the perspective of IBI staff, the school does not understand the IBI program or the roles of staff, and does not welcome their involvement. This was noted by IBI staff as the largest barrier to successful transition planning.

Both groups cited additional barriers to effective collaboration and cooperation. IBI staff reported that there were often negative attitudes on the part of both systems and both sets of participants cited a lack of communication between all parties. This was, in part, related to perceived philosophical differences and, in part, to an ineffective chain of communication. These barriers, in addition to disagreements between the two groups on other aspects of transition, affect the degree to which the two groups can work together effectively.

The effect of these barriers can be seen in the discrepant experience of both groups regarding collaboration and cooperation during transition planning. This discrepancy could reflect simply the

perception of these particular individuals but this finding is consistent with anecdotal information and recent legal cases (*Wynberg v. Ontario,* 2004).

There are several limitations with regards to the sample used in the current study. Participants in this study may not be representative of the population of school and IBI staff as a whole. In addition, due to the differences in sample size, comparisons between groups must be made and interpreted with caution. Despite these limitations, the pattern of results found in this study does correspond to the limited research in the field and suggests that the overall trends in the experiences of both groups were accurately captured. Another significant limitation is that the current study did not include a parent perspective or direct measures of the child. In addition, the questionnaires were designed for the purpose of this study and did not reliably measure all constructs of interest. In future research, school and IBI staff should be matched to specific children, so they are all reporting on the same transition process. In addition, future studies should incorporate a parental perspective as well as measures of the child's functioning and level of inclusion within the school system.

This study documented empirically some important differences in the two perspectives about the transition of children with autism from IBI programs into the school system and highlighted certain difficulties. However, on a positive note, there is also a great deal of similarity between the two groups, particularly in their hypothetical view of transition. Overall, both groups agree on the importance of inclusion, the importance of individualizing the transition process and the importance of involving families in transition planning. Sharing a similar view of what transition should ideally be like for these children is the first step to creating a better reality for all involved.

References

Bailey, D. B., Jr., McWilliam, R. A., Buysse, V., & Wesley, P. W. (1998). Inclusion in the context of competing values in early childhood education. *Early Childhood Research Quarterly, 13*, 27-47.

Burack, J. A., Root, R., & Zigler, E. (1997). Inclusive education for students with autism: Reviewing ideological, empirical, and community considerations. In D. J. Cohen & F. R. Volkmar (Eds.), *Handbook of autism and pervasive developmental disorders* (pp. 796-807). New York: John Wiley & Sons.

Chandler, L. K. (1992). Steps in preparing for transition: Preschool to kindergarten. *Teaching Exceptional Children, 25*, 52-55.

Cole, K. N., Mills, P. E., Dale, P. S., & Jenkins, J. R. (1991). Effects of preschool integration for children with disabilities. *Exceptional Children, 58*, 1-7.

Cook, B. G. (2001). A comparison of teachers' attitudes toward their included students with mild and severe disabilities. *Journal of Special Education, 33*, 203-213.

Cook, B. G., Tankersley, M., Cook, L., & Landrum, T. J. (2000). Teachers' attitudes toward their included students with disabilities. *The Council of Exceptional Children, 67*, 115-135.

Dunst, C. J. (2004, October). *Unpacking and disentangling those aspects of family-centered practices that matter most.* Paper presented at the St. Amant Centre Thirteenth Annual Conference on Developmental Disabilities, Winnipeg, Manitoba, Canada.

Handleman, J. S., Harris, S. L., & Martins, M. P. (2004). Helping children with autism enter the mainstream. In P. H. Barrett & T. H. Ollendick (Eds.), *Handbook of interventions that work with children and adolescents: Prevention and treatment* (pp. 1029-1042). New York: Wiley.

Hundert, J. (1982). Some considerations of planning the integration of handicapped children into the mainstream. *Journal of Learning Disabilities, 2*, 73-80.

Hundert, J. (2004, March 11). *Helping Families.* Presented at a PSY 3ZZ3E lecture at McMaster University, Hamilton, Ontario.

Hundert, J., Mahoney, B., Mundy, F., & Vernon, M.L. (1998). A descriptive analysis of developmental and social gains of children with severe disabilities in segregated and inclusive preschools in Southern Ontario. *Early Childhood Research Quarterly, 13*, 49-65.

Hundert, J., & Walton-Allen, N. (2005, November). *ABA-based supported school inclusion of students with autism.* Paper presented at the annual meeting of the Ontario Association of Behavior Analysis, Toronto, ON.

Integrated Services for Children Division (2000). *Program guidelines for regional intensive early intervention programs for children with autism.* Toronto: Author.

Levy, A. (2006). *The transition of children with autism from Intensive Behavioral Intervention programs (IBI) into the school system: Perceptions of IBI and school staff.* Unpublished master's thesis, York University, Toronto, Ontario, Canada.

McGregor, E., & Campbell, E. (2001). The attitudes of teachers in Scotland to the integration of children with autism into mainstream schools. *Autism, 5*, 189-207.

Ontario Ministry of Education. (2004). *The Individual Education Plan (IEP): A resource guide*. Retrieved March 1, 2005, from http://www.edu.gov.on.ca/eng/general/elemsec/speced/guide/resource/iepresguid.pdf.

Odom, S. L. (2000). Preschool inclusion: What we know and where we go from here. *Topics in Early Childhood Special Education, 20*, 20-27.

Odom, S. L., McConnel, S. R., & McEvoy, M. (1992). Social competence of young children with disabilities. Baltimore: Brookes.

Pavri, S., & Monda-Amaya, L. (2001). Social support in inclusive schools: Student and teacher perspectives. *The Council for Exceptional Children, 3*, 391-411.

Perry, A. (2002). Intensive early intervention program for children with autism: Background and design of the Ontario preschool autism initiative. *Journal on Developmental Disabilities, 9*, 121-128.

Pianta, R. C., & Kraft-Sayre, M. (2003). *Successful kindergarten transition: Your guide to connecting children, families and schools*. Baltimore: Paul H. Brookes Publishing Co.

Powers, M.D. (1992). Early intervention for children with autism. In D. E. Berkell (Ed.) *Autism identification, education, and treatment* (pp. 225-253). New Jersey: Lawrence Erlbaum Associates.

Robertson, K., Chamberlain, B., & Kasari, C. (2003). General education teachers' relationships with included students with autism. *Journal of Autism and Developmental Disorders, 33*, 123-131.

Rous, B., Hemmeter, M. L, & Schuster, J. (1994). Sequenced transition to education in the public schools: A systems approach to transition planning. *Topics in Early Childhood Special Education, 14*, 374-393.

Simpson, R. L., de Boer-Ott, S. R., & Smith-Myles, B. (2003). Inclusion of learners with autism spectrum disorders in general education settings. *Topics in Language Disorders, 23*, 116-133.

Toronto District School Board [TDSB] (2006). Telephone conversation on enrolment in procedures for Ontario school boards.

Turnbull, A.P., & Blacher-Dixon, J. (1981). Preschool mainstreaming: An empirical and conceptual review. In P.S. Strain & M.M. Kerr (Eds.) *Mainstreaming of children in schools: Research and programmatic issues* (pp. 71-100). New York: Academic Press.

Wehmeyer, M., Sands, D, J, Knowlton, H. E., & Kozleski, E. B. (2003). Establishing equal home-school partnerships: Parental and family involvement in education. In *Teaching students with mental retardation: Providing access to the general curriculum* (pp. 195-210). Baltimore: Paul H. Brookes Publishing.

Winter, E. C. (2002). Developmental disabilities and Ontario's schools. In I. Brown & M. Percy (Eds.) *Developmental Disabilities in Ontario* (2nd ed., pp. 583-601). Toronto: Ontario Association on Developmental Disabilities.

Wynberg v. Ontario, O.J. No. 1066 (Ont. S.C.J. Mar 12, 2004).