

Parental Perspectives on Inclusion: Effects of Autism and Down Syndrome

Connie Kasari,¹ Stephanny F. N. Freeman,¹ Nirit Bauminger,² and Marvin C. Alkin¹

This study examined the effects of the child's diagnosis (autism vs. Down syndrome), age, and current educational placement on parental perceptions toward inclusion for their child with disabilities. Parents of children with autism and with Down syndrome completed surveys regarding their opinions on their child's current educational placement, their desire for changing the current placement, and their views on inclusive education. Results indicated that diagnosis, age, and current placement influenced parental opinion on the ideal educational placement for their child. Parents of children with Down syndrome were significantly more likely to endorse inclusion (full-time placement in general education) as the ideal educational program for their child whereas parents of children with autism were more likely to endorse mainstreaming (consistent part-time placement with general education students). Parents of younger children and parents whose children were already placed in general education programs were more positive towards inclusion than parents of older children or students currently in special education. Findings are discussed in terms of child characteristics and prevailing educational practices.

KEY WORDS: Down syndrome; autism; educational placement; mainstreaming; special education.

INTRODUCTION

At increasing rates, children with developmental disabilities are being educated in inclusive classrooms. The trend towards inclusive education can be partly attributed to the parental advocacy movement towards inclusion. In spite of the importance of parents in making decisions regarding inclusion for their children with disabilities, most inclusion studies have focused on teachers and parents of typically developing children. These studies find that general education teachers are fairly satisfied with the current separate educational systems and cautious about full-scale inclusion (Coates, 1989; Semmel, Abernathy, Butera, & Lesar, 1991). Parents of typically developing children tend to voice concern over the integration of particular types of children with disabilities, especially those children with emotional and behavior problems and severe retardation

(Green & Stoneman, 1989). Parents of children with particular types of disabilities, however, have rarely been asked their opinions about their ideal educational placement, in general, or for their child, in particular.

In considering parent perspectives, two complicating issues concern the diagnosis and age of the child. For example, the extent to which diagnosis of the child may affect parental perceptions remains unknown (Hodapp & Dykens, 1994). Yet diagnosis may have important implications for how parents view their children and their educational experiences. Two different parents, one of a child with Down syndrome and another of a child with autism, may have distinct school-based concerns related to social relationships. Whereas the parent of the child with Down syndrome may see the general education classroom as the best setting for their child to model age-appropriate behaviors, the parent of the child with autism may be particularly concerned with large classroom sizes and less structure than in a specialized class (Mesibov & Shea, 1996).

Another issue concerns the age of children. Though some studies have examined the satisfaction of parents of children in inclusion, these studies tend to focus on

¹ Graduate School of Education and Information Studies, University of California, Los Angeles.

² Presently at School of Education, Bar Ilan University, Ramat-Gan, Israel.

preschool aged children (Bennett, Lee, & Lueke, 1998). Overall, parents of younger children with unspecified disabilities tend to be satisfied with mainstreaming and inclusion activities (Diamond & LeFurgy, 1994); it is unknown if parents of older children also favor inclusion. It is also unclear what specifically contributes to parental satisfaction. Concerns over child safety and acceptance may be greater for parents of older children (Hanline & Halvorsen, 1989).

In the current study we examined parental perceptions of two groups of children who differ greatly in their sociability, children with autism and children with Down syndrome. These two groups of children were chosen for several reasons. First, we know a great deal about the social characteristics of these children. Whereas children with Down syndrome are attracted to others and interested in social interactions, children with autism often avoid interacting with others, giving the impression of being disinterested (Kasari & Sigman, 1997). These two diagnostic groups are particularly interesting given the belief that many hold that inclusion can make a substantial improvement in the social behaviors of children with disabilities.

Second, although both children with Down syndrome and children with autism have significant disabilities, and have traditionally been educated in specialized settings, the educational approach with the children tends to be different, at least early on. Children with autism are often given intensive educational treatment involving a great deal of one-to-one tutoring (Dawson & Osterling, 1997; Fenske, Zalenski, Krantz, & McClannahan, 1985; Lord & Schopler, 1994; Lovaas & Smith, 1989; Lovaas, Calouri, & Jada, 1989; Rogers, 1998). In general, the approach has been behavioral in that individual behaviors of the child are modified through manipulation of environmental factors (Schreibman, 1988). Children with Down syndrome are typically engaged in early intervention soon after birth. Much of the approach to education is developmental in nature so that the child's own development is fostered through typical early educational activities (Honig, Caldwell, & Richmond, 1998). Finally, we chose these diagnostic groups because both have active and widespread parent associations.

We had two aims in the current study. First, we were interested in whether diagnosis and age of the child would affect how parents perceive inclusive educational environments for their children. Second, we were interested in what parents view as advantages of their child's current placement and which placement they view as ideal. To address these aims, we devised a series of questions related to inclusion and mailed the

questionnaires anonymously to parents on the mailing lists of two large parent associations.

METHOD

Participants

Participants included 113 parents of children with autism and 149 parents of children with Down syndrome. Demographic characteristics by group are presented in Table I. An independent sample *t*-test was carried out on age and no significant difference was found.

In general, the majority of children are being educated in special education programs, they are mostly European American, and their mothers have had some degree of college education. Chi-square tests indicated significant differences on mother's education level, $\chi^2(3) = 8.74, p < .05$, and ethnicity, $\chi^2(4) = 14.50, p < .01$. Mothers of children with autism were more educated and a higher percentage were of European American

Table I. Demographic Characteristics By Group

	Autism (<i>n</i> = 113)		Down syndrome (<i>n</i> = 149)	
	%	<i>n</i>	%	<i>n</i>
Mean age ^a	88.14 (44.14)		89.87 (50.10)	
Age group breakdown				
2-4 years	25	28	35	52
5-9 years	48	55	36	54
10-13 years	18	20	18	27
14-18 years	9	10	11	16
Child's Level of Severity ^b				
Below age level	46	50	35	52
At or above age	28	31	65	97
Don't know	28	32	0	0
Current program				
Early intervention	13	15	11	17
General education	15	17	26	39
Special education	72	81	63	93
Ethnicity				
European American	81	90	65	96
Latin American	3	3	17	25
African American	4	5	6	9
Asian American	10	11	10	15
Other	2	2	1	2
Mother's education level				
High school or less	6	6	13	19
Vocational school	27	30	36	53
Bachelor's degree	29	33	25	37
Beyond bachelor's	38	43	26	38

^a Reported in months (*SD*).

^b As reported by parents.

descent than mothers of children with Down syndrome. Because of this, analyses were conducted examining satisfaction, change, and program options within each education level and within European American versus minority ethnic levels. Results remained consistent with the overall findings of the study. In addition, correlation analyses and stepwise regression indicated no significant relationships between the demographic variables and the target variables.

Procedure

Surveys were sent anonymously to members of two Southern California parent associations for children with Down syndrome and children with autism. Even though both parent groups included professionals in the field and parents of children with other developmental disabilities, questionnaires were sent to all members to ensure confidentiality. Recipients were asked to return the survey if they had a child with Down syndrome or autism between the ages of 2 and 18 years. Response rates were approximately 53% for the Down syndrome families and approximately 40% for the autism families.

Survey

The survey contained three main sections:

Descriptive Information

The first section requested descriptive information about the family, including age, ethnicity, mother's level of education, and a general question about the level of the child's ability (below, at, or above level in language ability).

Current Educational Placement

The second section requested information about the current educational program of the child with autism or Down syndrome and parents' satisfaction with the current program. Respondents could check one of three options: general education, special education, or early intervention. Respondents were asked to further specify the type of program in which their child was currently placed. For instance, in Special Education, respondents could mark Special Education on a Special Education Campus, Special Education on a General Education Campus, Special Education and Mainstreamed for Recess, Lunch, Nonacademic Subjects, or Academic Subjects. In General Education, the respondents could identify if their child was receiving Special Education Services such as Adaptive Physical Education or

Speech Therapy. Satisfaction with their child's current program was assessed via a 5-point Likert scale, ranging from 1 (*very dissatisfied*) to 5 (*very satisfied*). A rating of 3 indicated neither satisfaction nor dissatisfaction.

In regard to their child's current program, parents were also asked if they had considered changing their child's program. The multiple-choice options of *yes*, *no*, and *uncertain* were presented. Finally, parents were asked to cite the advantages of their child's current program through multiple-choice options. Parents were given seven options: Peers as friends; Peers as role models; Other parents; Teachers; Other support services; Curriculum; and Location, as possible advantages to their child's current program. Parents could choose as many or as few of the options as they wanted.

Ideal Educational Program

The third section of the survey asked respondents to identify their ideal educational program. Parents responded to a multiple-choice question ranked from most restrictive to least restrictive. These six options included: Special education class on a special education campus; Special education class on a General education campus; Special education class on a General education campus and mainstreamed for nonacademic subjects; Special education class on a General education campus and mainstreamed for academic subjects; General education class with additional specialized services such as adaptive physical education, speech therapy, and so forth; and General education class without additional specialized services. Parents could choose as many options as they felt necessary.

In addition to the identification of the parents' ideal program, parents were asked to cite possible advantages of their ideal program. The same advantages were provided in multiple choice form as those presented in the current program.

RESULTS

Satisfaction and Change

Group Differences

Independent sample *t*-tests yielded no differences on satisfaction level for parents of children with Down syndrome versus parents of children with autism. Both parents of children with Down syndrome ($M = 3.72$) and parents of children with autism ($M = 3.68$) were equally satisfied with their child's current educational placement.

Similarly, using chi-square analyses, no significant differences were found on desire for change in

child's current educational program—41.5% of the parents of children with Down syndrome desired change, while 46.0% of the parents of children with autism desired change.

Age Group Differences

To determine the effect of age on satisfaction and desire for change, subjects were placed into four age groups (refer to Table I): (1) 2–4 years, (2) 5–9 years, (3) 10–13 years, and (4) 14–18 years.

A two-group (Down syndrome, autism) \times 4 (Age group) analysis of variance (ANOVA) was conducted on satisfaction level. Analyses revealed a main effect for age group, $F(3, 259) = 2.90, p < .05$. Parents of children with Down syndrome and autism who have children older than 5 years of age ($M = 3.50$) are less satisfied than parents with younger children ($M = 4.00$).

In terms of desire for change in their child's program, no significant differences were found, the chi-square analyses only approached significance with the older age group wanting change more so than the younger age groups.

Current Program Differences

A group (Down syndrome, autism) \times current program (early intervention, general education, special education) ANOVA was conducted on satisfaction level. Again, a main effect for current program was found, $F(2, 259) = 12.67, p < .001$, with parents of children in special education less satisfied ($M = 3.46$) than parents of children in general education ($M = 4.18$) and early intervention ($M = 4.19$). In addition, using chi-square analyses, $\chi^2(4) = 14.62, p < .01$, a higher percentage of parents of children in special education (49%) wanted change versus the parents of children in early intervention (39%) and in general education (28%).

Ideal Program

Since the response variable was binary (yes or no) for each ideal program category, a logistic regression analysis was performed on ideal program choice as outcome. Four demographic predictors were used: diagnostic group (Down syndrome vs. autism), age of child, current educational program, and child's level of language ability. Table II shows

Table II. Percentage of Respondents on Ideal Choice by Diagnosis, Age, and Current Program

Ideal program choice	Diagnostic group							
	Autism (<i>n</i> = 113)		Down syndrome (<i>n</i> = 149)					
	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>
Mainstreaming	53	60	29	43				
Inclusion	56	63	62	92				
Ideal program choice	Age group (years)							
	2–4 (<i>n</i> = 80)		5–9 (<i>n</i> = 109)		10–13 (<i>n</i> = 47)		14–18 (<i>n</i> = 26)	
	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>
Mainstreaming	26	21	46	50	45	21	42	11
Inclusion	65	52	62	67	57	27	34	9
Ideal program choice	Current Program							
	Early intervention (<i>n</i> = 32)		General education (<i>n</i> = 56)		Special education (<i>n</i> = 174)			
	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>
Mainstreaming	19	6	11	6	52	91		
Inclusion	75	24	80	45	47	83		

the percentage of respondents for each significant predictor.

Logistic regression analyses were conducted on the ideal program choice options and main effects were found. In terms of diagnostic group, parents of children with Down syndrome were 72% more likely than parents of children with autism to choose inclusion with services as their ideal program choice (odds ratio [OR] = 1.72, $p < .01$). In addition, parents of children with Down syndrome were 135% less likely to have chosen one of the mainstreaming options (for academic and for nonacademic programs) than parents of children with autism (OR = -0.35 , $p < .001$).

When age group was used as a predictor, parents of children who were 2–4 years of age and parents of children who were 5–9 years of age were 108% and 51%, respectively, more likely than older age group parents to want inclusion with services as their ideal program choice (OR = 2.08, $p < .05$; OR = 1.51, $p < .05$). However, the parents of children who were 2–4 years of age were 134% less likely to choose mainstreaming (both academic and nonacademic) than the other age groups (OR = -0.34 , $p < .001$). Thus, the parents of older children were more likely to choose inclusion but also were open to other mainstreaming options.

In terms of current program, parents of children in general education were 312% more likely than parents of children in special education and early intervention to choose inclusion with services as their ideal program (OR = 4.13, $p < .001$). In addition, these parents were 114% less likely to choose any type of mainstreaming as their ideal program (OR = -0.14 , $p < .001$).

The child's language ability was also examined in relation to ideal program choices and no significant differences were found. Whether a child was at, above or below age level in language was not related to the parents' ideal program choice.

Advantages of Current Program

Current program advantages were also examined as dependent variables using logistic regression since responses were binary (yes or no). Diagnostic group, age group, level, and current program were independent variables for these analyses and peers, curriculum, support services, teachers, location, and other parents were possible advantages to current program.

Peers

Parents of children with Down syndrome were 69% more likely to identify peers as an advantage of

their child's current program (whether peers were friends or role models) than parents of children with autism (OR = 1.69, $p < .01$). No age group differences were found, but parents of children in general education were 117% more likely than parents of children in special education or early intervention to cite peers as friends and role models as advantages of their child's current program (OR = 12.67, $p = .0001$).

Teachers

An interaction effect was found for age group and diagnostic group for teachers as an advantage of current programs. Parents of children with Down syndrome in both age Group 1 (2–4 years) and age Group 2 (5–9 years) were 79% and 84% less likely to choose teachers as an advantage than parents of children with autism in those age groups (OR = 0.23, $p < .05$; OR = 0.16, $p < .01$, respectively). In terms of current program, parents of children in special education were 500% more likely to choose teachers as an advantage of their program over general education and early intervention (OR = 6.00, $p < .0001$). No interaction effects were found with current program as a predictor variable nor were any significant effects found for level as a predictor variable.

Other Parents

An interaction effect was also found for age group and diagnostic group using logistic regression for other parents as an advantage of current programs. This time, parents of children with Down syndrome in both age Group 1 (2–4 years) and age Group 2 (5–9 years) were 572% and 514%, respectively, more likely to choose other parents as an advantage of their current program over parents of children with autism in those age groups (OR = 6.724, $p < .01$; OR = 6.14, $p < .01$). In terms of current program, parents of children in special education were 83% less likely and parents of children in general education were 80% less likely than parents of children in early intervention to consider other parents an advantage of current program (OR = 0.17, $p < .001$; OR = 0.20, $p < .05$, respectively).

Curriculum

Parents of children in special education were 57% less likely to choose curriculum as an advantage of their child's current program over parents of children in general education and early intervention (OR = 0.436, $p < .01$).

Support services and location were not significant in any logistic regression model.

Analysis of Written Comments

Parents could choose to write comments and 73% of parents in each group did so (84 parents of autistic children and 102 parents of Down syndrome children). Two raters coded the comments of parents regarding their ideal placement choice. All comments from respondents were written down. Common words or themes were identified and comments or quotes were placed within that grouping. Groupings were named. Not all quotes were placed within a grouping. Approximately 20% of quotes by parents of autistic children and 36% of quotes by parents of Down syndrome children did not fit any substantive category. These quotes were generally a restatement of the parents choice of ideal placement, or could not be deciphered. Quotes that did fit into major groupings followed four major themes in both groups of parents. Reliability of assignment was determined by two raters who independently examined comments and made a determination of "fit" within agreed-upon categories. Raters agreed upon the categorization of comments into the four categories on average 82.8% of the time (84.6% for autism and 81.0% for Down syndrome). The themes are described below:

Concerns About Level of Functioning

The largest category of comments of parents of autistic children centered on the appropriateness of inclusion due to the child's level of functioning or particular educational needs. Forty-nine parents (58%) of autistic children versus 20 parents (20%) of Down syndrome children commented on their desire for inclusion based on some aspect of their child's functioning. For example, a parent of a 4-year-old boy with autism wrote, "He would be overwhelmed by the regular sized classroom. He needs smaller classes with as little distraction as possible." Indeed, a large number of the parents of autistic children (23) indicated that inclusion was not appropriate for their child because the child's abilities required specialized education, or special attention to syndrome-specific behaviors. In fact, 3 parents indicated their desire for an autism-only school in which a particular instructional approach would be applied (e.g., discrete trials approach). No parent of a Down syndrome child indicated an approach specific to Down syndrome, and only 9 parents altogether indicated that their child's disabilities precluded inclusion.

Other parents, however, saw inclusion as appropriate for their child because their child was high functioning and could handle the general education requirements and setting (parents of 4 autistic and parents of 2 Down syndrome children). Still other parents

viewed inclusion as appropriate for their child because of the child's social difficulties. Most often parents viewed inclusion as a positive approach to increasing their child's socialization skills (8 parents of autistic children and 7 parents of Down syndrome children).

Some parents viewed inclusion as inappropriate right now, but wanted to consider inclusion in the future if their child's level of functioning warranted it. More often this latter comment was made by parents of autistic children (11) than parents of children with Down syndrome (2).

Concerns About Additional Services

Many parents commented that inclusion was the ideal choice but only if additional services were available to their child. More parents of children with Down syndrome indicated this to be their choice (27%) than parents of autistic children (17%). The additional services most often cited included a one-on-one aide in the classroom for the child, or speech and language therapy.

Social Justice/Real World Perspective

Parents of children with Down syndrome were more likely to comment that inclusion was their ideal choice because it was the "right thing to do" (16 parents) than were parents of children with autism (4 parents). For example, one parent of a 4-year-old child with Down syndrome wrote, "I would like my son to be included in mainstream society. Not tucked away." Another parent of a 4-year-old child with Down syndrome wrote, "I feel strongly that in order for him to survive in a 'regular' world, he needs to be among a majority of 'regular' kids (and they need to be around him)."

Adamant Against Inclusion

A smaller percentage of parents (5 parents of autistic children and 3 parents of Down syndrome children) were adamant that inclusion was not appropriate for their child. Many of these parents had already tried inclusion, and felt that it had failed. One parent of a 5-year-old autistic child wrote, "My son was too frustrated with full inclusion. I tried it, and it failed miserably after 9 months."

DISCUSSION

The current study was aimed at examining the perceptions of parents toward inclusion. We examined parental satisfaction and parent's perceived advantages of their child's current educational program. We also ex-

amined parental desire for changes in their current program, and parent's ideal program choice for their child. Unlike previous studies, we examined distinct factors that might influence parental perceptions. These factors included age and diagnosis of their child, and the child's current educational program. Utilizing both quantitative and qualitative data, there are four main findings.

The first major finding is that diagnosis of the child mattered in parent attitudes towards inclusive education. Parents of children with Down syndrome wanted inclusion for their children, and they were less likely to accept mainstreaming as an option. In contrast, parents of children with autism more often chose a mainstreaming option, either for academic or non-academic (e.g., recess, lunch) interactions. The comments made by parents in their open-ended statements on the ideal placement question yielded some insight into these different choices. While about a quarter of parents of both children with Down syndrome and autism commented that inclusion was ideal as long as specialized services were available in the general education classroom (e.g., 1:1 aide, speech and language services), over half of the parents of autistic children commented that their children's current educational needs could not be adequately met in an inclusive program. Only a quarter of the parents of children with Down syndrome, however, felt that their child's educational needs could not be met in an inclusive setting.

There may be several reasons why parents of children with significant disabilities might differ so much in their perceptions of inclusive education. Earlier studies examining mixed diagnoses of children have noted that parents voice concerns about the larger child-to-teacher ratio in the general education classroom and the program quality (Collins, 1995), express a desire for specially trained teachers (Turnbull & Winton, 1983), and are concerned about ridicule and rejection of their child from peers (Bennett *et al.*, 1998; Guralnick, Connor, & Hammond, 1995). Indeed, all of these same concerns were represented in the qualitative comments of parents in the current study. However, these concerns appeared greater for parents of autistic than Down syndrome children. The difference in degree of concern between parents may relate to differences in the characteristics of the children themselves. Children with a diagnosis of autism, by definition, have difficulty with peer relationships and in understanding social situations. Even high-functioning children with autism continue to have peer relationship problems (Bauminger & Kasari, *in press*). Moreover, children with autism appear to learn best in highly structured environments with few distractions (Schreibman, 1988). In contrast to autism, chil-

dren with Down syndrome may be particularly attuned to social interactions with others (Kasari & Bauminger, 1998). Children with Down syndrome appear interested in other children and in adults, and respond well to social situations. Thus, parents of children with Down syndrome may be more concerned with having typical role models for their children, and less concerned about the particular structure of the classroom.

Another reason that parents of children with autism and Down syndrome might differ on how they view the ideal educational program for their children relates to how parents viewed the advantages of their current program. The current educational program for most of the autistic and Down syndrome children was a special education classroom; thus, teachers most likely had specialized training. However, only parents of children with autism were significantly more likely to view teachers as a primary advantage of their current educational program. The recognition of specialized training and even a specialized teaching approach seemed important to parents of children with autism. Indeed, parents of children with autism were more likely to desire a specialized program focusing only on children with autism or on the specific needs of autistic children. Focus on "specific needs" of children with Down syndrome was not mentioned by parents of children with Down syndrome. That there is both empirical and practical support for a specific teaching approach that "works" with autistic children likely influences parental perceptions of what their children need educationally (Rogers, 1996; Rutter, 1996). Thus, these parents are more likely to endorse a specialized program and staff than parents of nonautistic children.

Parents of children with Down syndrome viewed peers and other parents as advantages of their current programs. Perhaps responding to the interest their children show in others, these parents cite the involvement of others (peers, parents) as significant advantages. These findings are consistent with one recent study that found that parents of preschool-aged children with developmental delays believed the included setting as more beneficial to peer relationships than nonincluded programs (Guralnick *et al.*, 1995).

A second major finding of the study is that the age of child influenced parental perceptions. Not surprisingly, parents of the youngest children were the most supportive of inclusion. These parents saw inclusion as the ideal program choice for their children, and less often entertained mainstreaming as an option. The effects of age were nearly always split between the youngest, preschool-age children and the older school-age children. Consistent with previous studies that have

generally examined preschool-aged children, our results also suggest that parents of preschoolers favor inclusion (Bailey & Winton, 1987). Examining a wider age range, as in the current study, however, yields greater variability in parental perceptions. Although parents of older children were less favorable towards inclusion, it may be that there have been far fewer opportunities for inclusion of their children, and/or parents have had less information available to them regarding inclusive educational opportunities. After all, mainstreaming opportunities have been widely available for the past 20 years, whereas full-scale inclusion has only recently been available to school-age children. It is possible that we are witnessing a generational change in parental perceptions towards inclusive environments for their children.

A third finding is that the child's current educational program also affected parental perceptions. Parents of children in special education were the least satisfied with their children's current program, and desired change more than parents of children in early intervention or general education programs. Yet parents of children in special education were significantly more likely to recognize teachers (but not the curriculum) as an advantage of their child's current program. These findings suggest that parents of children in special education may be more conflicted about what is educationally best for their children with disabilities. Finding the optimal level of specialized teacher training, appropriate curriculum, and classroom role models may seem impossible to these parents in solely a special or general education classroom.

Fourth, despite the significant influence of diagnosis, age, and current program on parental perceptions related to inclusion, there were also similarities in perceptions. Most notably, parents of children with different diagnoses were equally satisfied with their child's current program. Overall, parents indicated that they were fairly satisfied with their child's current educational program (average score of 3.7 on a 5-point scale, with 5 being very satisfied). Still, about 40% in each group desired changing their child's current educational program.

Finally, several limitations of the current study should be considered. The data for this study come from parent associations, and may reflect views that differ from families who are not participants in their local parent associations. It is also unknown the extent to which families who responded were active members of their parent association or not, as mailings went out to both active and inactive members. Additionally, mothers of autistic children tended to be more highly educated and

less often from minority backgrounds. These differences in family backgrounds could influence the educational opportunities parents desire for their children with disabilities. Finally, we did not solicit detailed information about the particular educational context in which children were educated. Thus, we do not know the extent to which views of parents may have differed depending on the amount and type of services they received, or the degree to which services were delivered in the home or at a center. The difference between center- and home-based services may be particularly important to consider with parents whose children are in early intervention programs.

In summary, then, the current study examined diagnosis, age, and current educational program as influencing parental perceptions toward educational opportunities for their children. All three factors—diagnosis, age, and current program—affected parental perceptions. Moreover, a significant proportion of parents in each diagnostic group desired changing their child's current educational placement. Intervention programs should carefully consider parental perceptions and desires for educating their children, as the notion that "one size education fits all" may not be in the best interests of children and their families (Borthwick-Duffy, Palmer, & Lane, 1996). Future research, then, should continue to examine the effectiveness of different educational approaches for children with different diagnostic characteristics, developmental needs, and parental expectations for their children.

ACKNOWLEDGMENTS

This research was supported by an Academic Senate grant to the first author. Appreciation is extended to Patrick Curran and Alfonso Ang for assistance with analyses, and Emily Pai and Lavada Minor for coding assistance, and Robert Hodapp for helpful comments made on an earlier version of the paper. We also thank the participating families of the Los Angeles and Orange County Down syndrome and autism parent associations.

REFERENCES

- Bailey, D. B., & Winton, P. J. (1987). Stability and change in parents' expectations about mainstreaming. *Topics in Early Childhood Special Education, 7*(1), 73–88.
- Bauminger, N., & Kasari, C. (in press). Loneliness and friendship in children with high-functioning autism. *Child Development*.
- Bennett, T., Lee, H., & Lueke, B. (1998). Expectations and concerns: What mothers and fathers say about inclusion. *Education and Training in Mental Retardation and Developmental Disabilities, 33*(2), 108–122.

- Borthwick-Duffy, S. A., Palmer, D. S., & Lane, K. L. (1996). One size doesn't fit all: Full inclusion and individual differences. *Journal of Behavioral Education, 6*, 311-329.
- Coates, R. D. (1989). The regular education initiative and opinions of regular classroom teachers. *Journal of Learning Disabilities, 22*, 532-536.
- Collins, B. (1995). The integration of students with severe or profound disabilities from segregated schools into regular public schools: An analysis of changes in parent perceptions. *Journal of Developmental & Physical Disabilities 7(1)*, 51-65.
- Dawson, G., & Osterling, J. (1997). Early intervention in autism. In M. J. Guralnick (Ed.), *The effectiveness of early intervention* (pp. 307-326). Baltimore: Brookes.
- Diamond, K. E., & LeFurgy, W. G. (1994). Attitudes of parents of preschool children toward integration. *Early Education & Development, 5(1)*, 69-77.
- Fenske, E. C., Zalenski, S., Krantz, P. J., & McClannahan, L. E. (1985). Age at intervention and treatment outcome for autistic children in a comprehensive intervention program. *Analysis and Intervention in Developmental Disabilities, 5*, 49-58.
- Green, A. L., & Stoneman, Z. (1989). Attitudes of mothers and fathers of nonhandicapped children. *Journal of Early Intervention, 13*, 292-304.
- Guralnick, M. J., Connor, R. T., & Hammond, M. (1995). Parent perspectives of peer relationships and friendships in integrated and specialized programs. *American Journal on Mental Retardation, 99*, 457-476.
- Hanline, M. F., & Halvorsen, A. (1989). Parent perceptions of the integration transition process: Overcoming artificial barriers. *Exceptional Children, 55*, 487-492.
- Hodapp, R. M., & Dykens, E. M. (1994). Mental retardation's two cultures of behavioral research. *American Journal on Mental Retardation, 98*, 675-687.
- Honig, A. S., Caldwell, B. M., & Richmond, J. B., (1998). Infancy intervention: Historical perspectives. *Early Child Development & Care, 26* (1-2), 89-93.
- Kasari, C., & Bauminger, N. (1998). Social and emotional development in children with mental retardation. In J. A. Burack, R. M. Hodapp, & E. Zigler (Eds.), *Handbook of mental retardation and development* (pp. 411-433). New York: Cambridge University Press.
- Kasari, C., & Sigman, M. (1997). Linking parental perceptions to interactions in young children with autism. *Journal of Autism and Developmental Disorders, 27*, 39-57.
- Lord, C., & Schopler, E. (1994). TEACCH services for preschool children. In S. Harris & J. Handleman (Eds), *Preschool education programs for children with autism* (pp. 87-106). Austin, TX: PRO-ED.
- Lovaas, O. I., & Smith, T. (1989). A comprehensive behavioral theory of autistic children: Paradigm for research and treatment. *Journal of Behavior Therapy and Experimental Psychiatry, 20*, 17-29.
- Lovaas, O. I., Calouri, K., & Jada, J. (1989). The nature of behavioral treatment and research with young autistic persons. In C. Gillberg (Ed.), *Diagnosis and treatment of autism*. New York: Plenum Press
- Mesibov, G. B., & Shea, V. (1996) Full inclusion and students with autism. *Journal of Autism and Developmental Disorders, 26*, 337-346.
- Rogers, S. J. (1998). Empirically supported comprehensive treatments for young children with autism. *Journal of Clinical Child Psychology, 27*, 168-179.
- Rogers, S. J. (1996). Brief report: Early intervention in autism. *Journal of Autism and Developmental Disorders, 26*, 243-246.
- Rutter, M. (1996). Autism research: Prospects and priorities. *Journal of Autism and Developmental Disorders, 26*, 257-275.
- Schreibman, L. (1988). *Autism*. Newbury Park, CA: Sage.
- Semmel, M. I., Abernathy, T. V., Butera, G., & Lesar, S. (1991). Teacher perceptions of the regular education initiative. *Exceptional Children, 58*, 9-24.
- Turnbull, A. P., & Winton, P. (1983). A comparison of specialized and mainstreamed preschools from the perspectives of parents of handicapped children. *Journal of Pediatric Psychology, 8*, 57-71.

Copyright of Journal of Autism & Developmental Disorders is the property of Kluwer Academic Publishing and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.

Copyright of Journal of Autism & Developmental Disorders is the property of Springer Science & Business Media B.V. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.