

## Student IEP Participation and Parental Satisfaction Among Adolescents with Autism

### Abstract

*A student's Individualized Education Program (IEP) has a direct impact on the development of curricular and instructional services for students receiving special educational services across the United States. Parents of students with autism and other disabilities often perceive a disconnect between those services provided by the school and what they perceive that their student needs in order to be successful in life. The purpose of the current study was to examine the association of student IEP participation with parental satisfaction among adolescents with autism. Results indicate higher levels of parental satisfaction when their student with autism participated in the IEP process.*

In the past 60 years, autism has progressed from a rare diagnosis to a condition increasing in prevalence and demanding attention regarding educational programs. The fourth edition of the Diagnostic and Statistical Manual of Mental Disorders, published by the American Psychiatric Association (1994), records the prevalence of reported rates of autism as two to twenty cases per ten thousand individuals at the time of its publication. Current survey and research efforts estimate that, at present, one in 150 children have a condition on the autism spectrum (Kuehn, 2007). Whether due to changes in diagnostic criteria, increased awareness, or other factors, the number of cases of children diagnosed with autism spectrum disorders is rising. One must acknowledge that the number of children diagnosed with autism spectrum disorders is increasing at a rate that deserves further consideration addressing special education services.

According to the U.S. Office of Special Education Programs (2006), over 200,000 individuals with autism, ages 6 to 12 years old, received special education services in the United States. As established in the Education for All Handicapped Children Act of 1975 (Public Law 94-142), each of these students with autism receiving special education services are required to have an annual individualized education program (IEP). IEPs include, among many things, the goals and objectives for that student receiving special education services. Furthermore, IEPs play an important role in the development of the curricular and instructional services that are provided, including those services that are not provided to a student with a disability.

As such, the IEP is developed as a product of an annual meeting among parents, teachers, other stakeholders, and often, the student. The Education for All Handicapped Children Act

#### Authors

Lucy Barnard-Brak,  
Tonya Davis,  
Julie K. Ivey,  
David Thomson

Baylor University,  
Waco, TX

#### Correspondence

Lucy\_Barnard-Brak  
@baylor.edu

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of 1975 (Public Law 94-142) requires that students with disabilities should participate in the IEP meeting, when appropriate. Furthermore, the Individuals with Disabilities Education Act (IDEA) 1997 added the assurance that older students participate in at least some part of their IEP meetings. IDEA states that students 14 years and older must be invited to attend their IEP meetings if transition services are to be discussed. Moreover, this same federal legislation has also mandated that IEP decisions must reflect student interests and preferences, and that these interests should serve to develop a plan for transition services. From this, student involvement in the IEP process would appear to be desirable to successfully plan and deliver special education services that are student-centered.

The inclusion of the student in the IEP meeting process not only fulfills legal mandates, but can also be thought of as serving a larger psychosocial need, the promotion of self-determination among students with disabilities. According to Wehmeyer (1996), self-determination is “acting as the primary causal agent in one’s life and making choices and decisions regarding one’s quality of life free from undue external influence or interference” (p. 24). According to Skouge, Kelly, Roberts, Leake, and Stodden (2007), self-determination encompasses many behaviours, including setting one’s own goals, planning life transitions, and envisioning one’s future life. Self-advocacy skills appear to be acknowledged as a key component to achieving self-determination among students with disabilities (Thoma, Nathanson, Baker, & Tamura, 2001; Wehmeyer, 1998). As such, these self-advocacy skills can facilitate the development of self-determined behaviour, which has been associated with positive experiences and outcomes for students with disabilities (Wehmeyer, 1998). Students who are self-determined should ostensibly be better able to self-advocate for their needs and wishes in their future adult lives.

Although the legal mandates and research regarding self-determination clearly identify the importance of student participation in the IEP process, research has indicated that schools are not necessarily in compliance with these mandates. For example, although legally mandated, Williams and O’Leary (2000) found that one-third of schools did not invite students to IEP meetings. Furthermore, 26% of the states did not take measures to ensure that students’

interests were taken into consideration during IEP development. Additionally, Defur, Getzel, & Kregel (1994) reviewed transition plans, finding that less than half of the students attended their IEP meetings. Furthermore, after reviewing IEPs for students ages 16–22 years, Powers and colleagues (2005) found that while 76% of the IEPs were signed by the student, only 5% had evidence of student involvement in career planning. This is consistent with the findings of Thoma et al. (2001) who also found that students were physically present in IEP meetings, but not actively involved in the IEP construction. These results suggest that student interests were not consistently appreciated and therefore, goal selection was not related to student interest.

Powers and colleagues (2005) found that student IEP involvement appeared to be particularly problematic for students with developmental disabilities, such as autism, as compared to students with other disabilities. Specifically, students with developmental disabilities were less likely to attend their IEP meetings than students with learning disabilities, physical disabilities, or emotional disturbances. Additionally, Power et al. found that students with developmental disabilities were less likely to be placed in jobs consistent with their employment aspirations. Rather, in their study, Power et al. found that students with developmental disabilities were more likely to be placed in stereotypical work experiences.

We posit that improving student involvement in the IEP process may not only serve to offer compliance to legislative mandates and permit the student to practice the skills of self-determination, but also improve parent satisfaction with their child’s education, mainly by strengthening the connection between school services and the child’s needs. In fact, researchers have found that many parents of children with autism are not satisfied with their child’s educational goals and services, often citing a disconnect between school and home perspectives. For example, Kohler (1999) conducted a survey of parents of children with autism. He reported that more than half of the parents claimed that school services were ineffective or unrelated to their child’s most pressing needs. Additionally, Spann, Kohler, and Soeksen (2003) found similar results; in fact, 44% of parents of children with autism felt that schools were not addressing their child’s most significant needs.

Moreover, Whitaker (2007) found that communication between the home and school was related to parent satisfaction among parents of children with autism. Furthermore, Grigal, Neubert, Moon, and Graham (2003) found that parents considered student participation in IEP meetings to be important and beneficial. In other words, it is possible that improving student involvement in the IEP meetings may improve the connection between school services and the child's needs—thereby improving parent satisfaction, not only with the IEP meeting, but with special education services in general.

Strengthening this connection between school services and the child's needs would appear to improve parental satisfaction, not only with the IEP process, but with special education services in general. The purpose of this study was to examine the association of student IEP participation with parental satisfaction among adolescents with autism. To achieve the purpose of this study, we examined the relationship of student IEP participation among adolescents with autism on two, independent measures of parental satisfaction. Specifically, the research question in this study examines how the relationship of student IEP participation among adolescents with autism is associated with parental satisfaction with both the IEP process and the school. Parental satisfaction measures included parental satisfaction with the IEP process along with their overall satisfaction with the school.

## Method

### Participants

The National Longitudinal Transition Study-2 (NLTS-2) is a nationally-representative study that examined adolescents with disabilities into adulthood. Approval by a human subjects research ethics board was not required as all data were obtained from an archival data set collected as part of the NLTS-2. The NLTS-2 consists of a sample of approximately 11,000 adolescents receiving special education services who were ages 13 through 16 as of the year 2000 to participate in the first and subsequent waves of the study. For the purpose of our study, we utilized data collected as part of the first wave of the NLTS-2. The age ranged from 161 months old ( $\approx$  13.42 years old) to 214 months old ( $\approx$  17.83

years old) with a mean of 187 months old ( $\approx$  15.58 years old) ( $SD = 13.87$  months). This age range reflects the ages of participants in the first wave of the NLTS-2, which was utilized in the current study. The NLTS-2 contains some 1,019 adolescents with autism spectrum disorders, which comprises approximately 11.1% of the total sample. Of these adolescents with autism, approximately 16.9% ( $n = 172$ ) were identified as female while 83.1% ( $n = 847$ ) were male. The ethnic distribution was approximately 67.9% ( $n = 687$ ) were White followed by 12.1% ( $n = 123$ ) were Hispanic or Latino, while 25.5% ( $n = 258$ ) were African American, 4.1% ( $n = 42$ ), and 2.0% ( $n = 20$ ) were Native American. According to documentation for the NLTS-2, bias in the sample is not a significant issue. The process used to ensure a representative sample is available (Javitz & Wagner, 2005). The random sampling for this study was done from a nationally representative sample, stratified to be representative of geography, district enrollment, and community/district wealth. Many of the variables are thereby controlled, resulting in a relatively high internal validity.

### Measures

All variables were obtained from the first wave of the NLTS-2. The independent variable of student IEP participation consisted of a dichotomous, yes/no response format. The two dependent variables were parent satisfaction with the IEP process and special education services ( $M = 13.40$ ,  $SD = 2.95$ ) as well as parent overall school satisfaction ( $M = 14.10$ ,  $SD = 2.65$ ). Further information regarding the psychometric and other methodological properties of these measures of parental satisfaction, as constructed by SRI International, may be obtained from the NLTS-2 website (NLTS-2, 2009) along with complete copies of the instrumentation (SRI International, 2000). We controlled for communication skills in predicting student IEP participation among adolescents with autism. To achieve this statistical control, the variable of how well a student is reported to communicate was utilized. This communication skills variable was measured from parental response along a semi-continuous, four-point scale, ranging from: student does not communicate at all, a little trouble communicating, a lot of trouble communicating, and no trouble communicating at all.

## Procedure

Analyses were performed in *MPlus* (v. 5.10; Muthén & Muthén, 2008). With advances in path analysis and structural equation modeling techniques, *MPlus*, a statistical software package, permits analyses to be conducted with dichotomous response items based upon the development of methods of estimations that can handle categorical variables. Missing data for scores were analyzed using full information maximum-likelihood (FIML) as the method of estimation. Weights were employed in *MPlus* (v. 5.10) to produce accurate population estimates based upon sample characteristics by accounting for sampling errors due to random discrepancies between the true population and sample achieved.

## Analysis

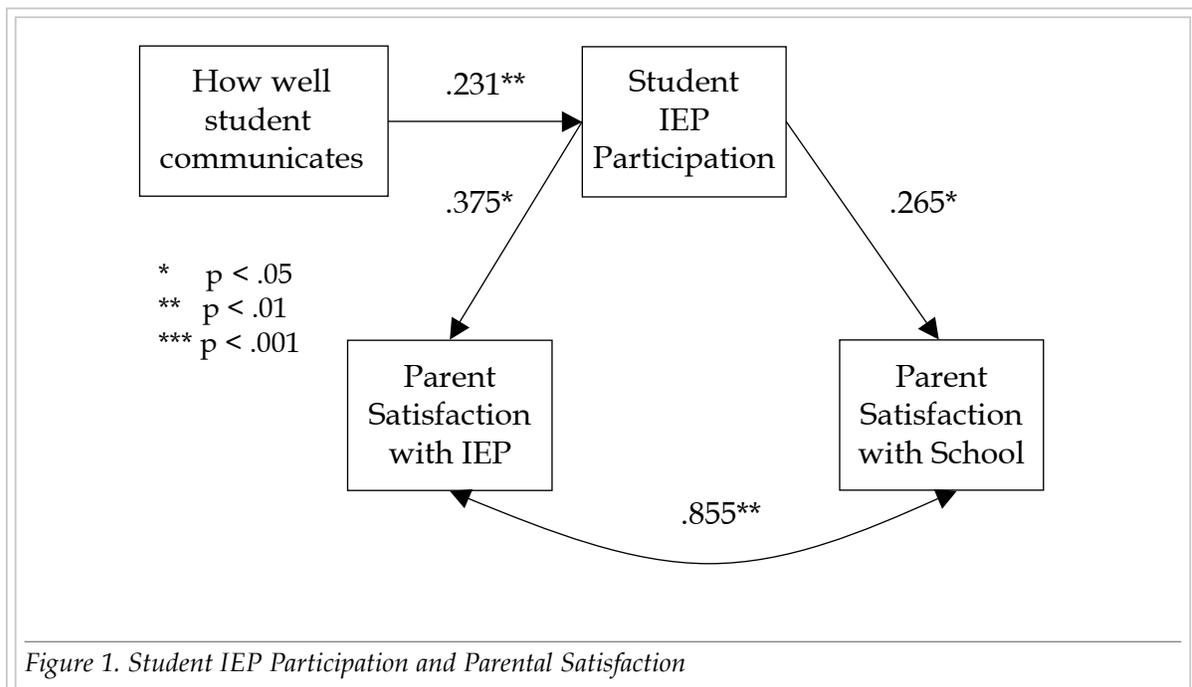
As all variables were observed, path analysis models were performed to achieve our purpose while controlling for how well a student communicates. In performing our analyses, four statistics reflecting fit were reported: the chi-square ( $\chi^2$ ) test statistic; the root mean square error of approximation (RMSEA); the Tucker Lewis Index (TLI), also known as the Non Normed Fit Index (NNFI); and the Comparative

Fit Index (CFI) as appropriate. No post hoc model modifications were made.

## Results

In evaluating model fit, the chi-square goodness-of-fit statistic was not significant, indicating that the data may fit the model,  $\chi^2(2) = 1.992$ ,  $p = .37$ . The RMSEA compensating for the effects of model complexity was 0.006, which according to Browne and Cudek (1993), indicates an acceptable fit of the model being less than or close to 0.05. A value of 0.986 for the TLI and a value of 0.966 for the CFI were achieved. Hu and Bentler (1999) note that fit index values of .95 (or better) are indicative of good fit. *Figure 1* contains the path diagram for the association between student IEP participation with parent IEP satisfaction and parent satisfaction with the school among adolescents with autism.

After establishing model fit, the model can then be examined with respect to individual path values. A path coefficient value provides an estimate of the magnitude of hypothesized effects, which can be interpreted like a correlation value as they are standardized coefficients derived from covariance matrix analyses. In performing our analyses, we statistically controlled for how well a student was reported to communicate in influ-



encing IEP participation among adolescents with autism. These communication skills appeared to be significantly associated with IEP participation among adolescents with autism with a standardized path coefficient value of .231. In evaluating the rest of the paths, student IEP participation among adolescents with autism appeared to be significantly associated with parent satisfaction with the IEP process along with overall satisfaction with the school. The relationship between student IEP participation and parent satisfaction with the IEP process was moderate and positive with a significant standardized path coefficient value of .375. This result indicates that as student IEP participation increases among adolescents with autism, parents are significantly more likely to be satisfied with the IEP process. While the relationship between student IEP participation and parent overall school satisfaction was positive and significant, this relationship was not as strong as the relationship between student IEP participation and parent satisfaction with the IEP process with a significant standardized path coefficient value of .265. However, there is a strong, positive association between parent satisfaction with the IEP process and their satisfaction with the school as a whole with a significant standardized path coefficient value of .855.

## Discussion

The results of the current study indicate how student IEP participation among adolescents with autism is positively associated with parental satisfaction with both the IEP process and with the school. Interestingly, the results of the current study also indicate a moderate, statistically significant association between the ability of a student to communicate as rated by parents and student IEP participation. As we hypothesized this relationship between communication skills and student IEP participation for adolescents with autism, we statistically controlled for the influence of this variable in our analysis. The strongest association was found to be between parental satisfaction with the IEP process and overall satisfaction with the school. For students with autism, there is a vital contact that occurs with school personnel at their IEP meetings. In fact, IEP meetings are actually intended to guide the majority of the school experience in terms of curricular goals and objectives.

Additionally, there was a positive, statistically significant relationship between student participation in the IEP process and parental satisfaction with the IEP process. As students with autism were more likely to participate in the IEP process, parents were more likely to have higher levels of satisfaction with the IEP process. There was also a positive, statistically significant relationship student participation in the IEP process and parental satisfaction with the school as a whole. As students with autism were more likely to participate in the IEP process, parents were more likely to have higher levels of satisfaction with the school as a whole. In this sense, school personnel can not only improve outcomes and experiences for students with autism by including them in the IEP process, but they can also improve parental levels of satisfaction with the IEP process and the school as a whole. Indeed, this parental level of satisfaction with the IEP process and the school as a whole appear to be highly correlated with a standardized path coefficient value of .855. In our analyses, we tested the directionality of this relationship as indicated by Figure 1. While our results suggest support for the current model, we should note that other models may be just as applicable. For example, parents who may be satisfied with their child's school and IEP process may encourage their child to participate in the IEP process.

In examining a sample of preschoolers with autism, Bitterman, Daley, Misra, Carlson, and Markowitz (2008) indicated that parental satisfaction was similar to that of children with disabilities other than autism. Among preschoolers with autism, Bitterman et al. note the importance of parental satisfaction, as it may possibly reduce the origins of school-parent conflict. We suggest this possible benefit of improving parental satisfaction through student IEP participation may be transferable in considering adolescents with autism. Parental satisfaction may be even more highly associated with student IEP participation in adolescence given that their children are developing into young adults, an often anticipated, but anxiety-inducing milestone for parents of children with disabilities. The inclusion of adolescents with autism into the planning and implementation of their services associated with the IEP process would appear to be particularly relevant for parents as their adolescents are transition-

ing into adulthood. As such, adulthood accompanies with it adult decisions that require an individual to fully participate and act autonomously. Additionally, as data were collected as part of the NLTS-2, the results may be considered highly generalizable.

Once the relationship between student participation and satisfaction has been established, the task is how to increase the two. Miles-Bonart (2002) investigated variables that increased satisfaction with IEPs. These included attendance of proper personnel, communication, and use of proper etiquette and procedures. In order to encourage student participation in the IEP, adolescents should have familiar faces in attendance. The personnel involved must be trained to interact with both the parents and the student. This includes knowledge about using everyday language instead of technical jargon. In addition, the surroundings must be comfortable. Furthermore, parents and students with no experience with IEPs should be allowed extra time and explanations.

As with any large study there are limitations of unknown factors relating to the subjects. Past experiences influence perceptions or expectations of parents as they enter a room with teachers and administrators. Any negative aspect of the procedure could affect whether or not the parents approve of the child's participation. The results of the current study would appear to provide information to schools and relevant personnel as to how inclusive efforts such as student IEP participation may be associated with higher levels of parental satisfaction.

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