Published in final edited form as:

Psychol Serv. 2009 August ; 6(3): 223–234. doi:10.1037/a0010738.

Attitudes Toward Adoption of Evidence-Based Practices: A comparison of Autism Early Intervention Providers and Children's Mental Health Providers

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Abstract

Across the country, states are reporting increases in the number of children with autistic spectrum disorders (ASD) served each year in the early intervention system. Research examining factors impacting the successful dissemination and implementation of evidence-based practice (EBPs) into service systems for these children is limited. Preliminary information indicates that adoption of EBPs is variable. Provider attitudes toward the adoption of EBPs may be one factor that limits or facilitates implementation of efficacious treatments and these attitudes vary by organizational context and provider individual differences. The current study examines cross-context differences in provider attitudes toward EBPs by comparing the attitudes of 71 education-based early intervention providers working with children with ASD to the attitudes of 238 mental health providers in the public mental health system. This provides the first examination of ASD early intervention provider attitudes toward EBP. Results indicated that early intervention providers reported significantly more favorable attitudes toward adopting EBPs than did mental health providers. Early intervention providers with extended experience in the field perceived less divergence between their current practice and EBPs. Implications are discussed.

Keywords

Autism; Early Intervention; Mental Health; Evidence-Based Practice; Attitudes

Autism is characterized by impairments in social interaction and communication along with restricted, repetitive and stereotyped patterns of behavior (DSM-IV, 2000). Autism is an enigmatic disorder that affects almost all areas of child development. The full spectrum of autism includes a wide range of symptoms and diagnostic labels (e.g., Autistic Disorder, Asperger's Disorder, Rett Syndrome, Pervasive Developmental Disorder Not Otherwise Specified) often referred to as autistic spectrum disorder (ASD). Within the last two decades, estimates of the prevalence of ASD has increased from 4–5 per 10,000 children to approximately 10 times that number. Even more recently, research has suggested an incidence of between 1 and 150 to 1 per 166 when the full spectrum of ASD is considered (e.g., Baird et al., 2001; Fombonne, 2003; Rice et al., 2007). Early identification of ASD in children under age 3 is becoming increasingly common (e.g., Charman & Baird, 2002; Filipek et al., 1999; Mandell, Zubritsky, & Novak, in press; Rogers, 2001).

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This increase in identification, along with treatment studies suggesting substantial gains when effective treatment is provided at a very early age (Lovaas, 1987; McGee, Daly, & Jacobs, 1994; Strain & Cordisco, 1994), has led to an increased emphasis on early intervention (EI) and has increased the number of professionals providing services for children with ASD. This increase in service utilization has burdened local educational and EI systems (California Department of Developmental Services, 2003; Newacheck, Hung, Hochstein, & Halfon, 2002; Jacobson & Mulick, 2000; Jarbrink & Knapp, 2001; Mandell D. S. & Palmer R. F., 2005) and has highlighted the need for gaining a better understanding of how to better disseminate and implement evidence-based practices (EBPs) or practices supported by research findings, in public programs.

Although no specific educational treatment has emerged as the established standard for all children with ASD, several methods have been demonstrated to be efficacious in research settings and are now considered best practice for use in early intervention and school settings. The most well researched programs are based on the principles of applied behavior analysis (e.g., Dunlap, 1999; Schreibman, 2000). Treatments based on behavioral principles represent a wide range of early intervention strategies for children with autism. These range from highly structured programs which are conducted in a one-on-one treatment setting (Anderson, Avery, DiPietro, Edwards & Christian, 1987; Lovaas, 1987; McEachin, Smith & Lovaas, 1993) to more naturalistic behaviorally-based programs which include less structured programming in both individual and school settings (e.g., Bondy & Frost, 1994; McGee, Krantz, Mason, & McClannahan, 1983; Schreibman & Koegel, 1996; Stahmer, 1995). In the more naturalistic program, children showed greater generalization of skills, and naturalistic strategies were more easily adapted for use in parent education and training programs (Schreibman, Kaneko & Koegel, 1991; Schreibman, 1988). Approximately half of the children have good outcomes in both structured and naturalistic behavioral programs (Lovaas, 1987; Schreibman & Koegel, 1996). Other behavioral techniques are also reporting promising results (National Research Council, 2001). Some techniques involve comprehensive educational programs, while others focus on one area of difficulty, such as communication or problem behaviors.

A few techniques that are not behavioral in nature are beginning to demonstrate effectiveness as well. Some of these are functional techniques which use structured environments, visual cueing, and other strategies to assist children with autism and in navigating their environments. Case studies and studies of components of these techniques are supportive of treatment efficacy (e.g., Ozonoff & Cathcart, 1998; Panerai, Ferrante, & Zingale, 2001; Schopler, Mesibov & Baker, 1982). Developmental models have also shown some promising results and again, indicate that about half of the children do very well (Greenspan & Weider, 1997). In addition, many "model programs" for early intervention have shown success using the techniques described above or a combination of techniques (for a complete description of several model programs see Handleman & Harris, 2001).

However, research examining the translation of behavioral and educational research into community EI programs is limited. Based on the experience of limited dissemination of EBPs in other service settings (Mcgee, Krantz, Mason, & Mcclannahan, 1983; Weisz, Donenberg, Han, & Weiss, 1995), and a recent qualitative study of a group of autism EI providers (Stahmer, Collings, & Palinkas, 2005), it appears that community EI providers use a variety of interventions, which vary greatly in quality, intensity, and level of empirical support.

Most of the current attempts to bridge the gap between evidence and practice are unidirectional efforts to disseminate efficacious interventions into practice settings. These efforts are essential and promising, but they represent only one direction in building a bridge

between science and practice and generally do not take into account EI provider attitudes toward adopting EBPs. Researchers and providers across a variety of disciplines, including EI, are often frustrated by the gap between research and practice (Bondy & Brownell, 2004). In the area of ASD services, researchers are skeptical about the ability and/or willingness of public programs to utilize EBPs to provide quality treatment due to limited training and funding (Mcgee, Morrier, & Daly, 1999). Conversely, service providers may feel that EBPs do not capture the richness and complexity of the children in their programs (Mcgee et al., 1999). Cochran-Smith & Lytle (1999) describe service provision as more of an artistic endeavor in that the provider must be constantly creative to optimize learning for a range of children. If the most efficacious and effective interventions are to be disseminated and implemented in public EI settings, a better understanding of the attitudes of EI providers is needed to effectively tailor dissemination and implementation efforts in relation to provider individual differences in the EI context.

Children with ASD entering EI programs are served by professionals in both education and mental health. In fact, community EI programs are required to provide services across the educational and mental health arenas (i.e., Individuals with Disabilities Act (IDEA) Parts B and C). Although ASD researchers and policy makers are calling for a greater diffusion of empirically supported treatments into community settings (National Institute of Mental Health, 2004) there has been an emphasis on intervention development research with little attention to translation of new treatments into service systems. Mental health services researchers have developed models for examining the context into which evidence-based practices (EBPs) are likely to be disseminated, adopted and implemented (Aarons, 2005; Aarons & Sawitzky, 2006; Burns, Hoagwood, & Mrazek, 1999; Glisson, 2002; Schoenwald & Hoagwood, 2001; Weisz, Chu, & Polo, 2004) which may assist in developing a model applicable to ASD.

A recent services study examined mental health (MH) provider attitudes toward the adoption of EBPs in community MH settings (Aarons, 2004). Related studies suggest that attitudes toward adoption of innovation can be a precursor to the decision of whether or not to try a new practice (Candel & Pennings, 1999; Frambach T & Schillewaert, 2002; Rogers, 1995). In order to assess provider attitudes toward adopting EBPs, Aarons (2004) developed the Evidence-Based Practice Attitude Scale (EBPAS). The EBPAS development sample was comprised of public sector MH service providers. Four dimensions of attitudes were identified which paralleled those identified in the literature: (1) the intuitive *appeal* of an EBP (e.g., Watkins, 2001) (2) likelihood of adopting EBP given *requirements* to provide services in a specified way based on organizational policies or funding exigencies (Garland, Kruse, & Aarons, 2003); (3) general *openness* to using or adopting new practices (Anderson & West, 1998); and (4) perceived *Divergence* of the providers usual practice from EBP. The study results indicated that attitudes toward adoption of EBPs varied by organizational context and provider education and experience. In contrast to outpatient providers, providers working in wrap-around programs were more open and those working in case management programs were less open to adoption of EBPs. This finding highlighted the importance of considering the programmatic context into which EBPs are to be disseminated and implemented. In addition, MH interns and providers with higher educational attainment had generally more positive attitudes toward adoption of EBPs suggesting that provider individual differences might also be important. Interestingly, no significant differences were found in attitudes toward adoption of EBPs across disciplines (e.g., social work, psychology, etc). Although provider attitudes toward innovation and EBP represent just one aspect of many complex factors that can affect adoption of EBPs (Aarons, 2005), the study of attitudes toward EBP has the potential to facilitate a better understanding for researchers of how service providers respond to change in practice.

In the area of ASD, EI providers are being asked to employ new “best practices” very rapidly (National Research Council, 2001). It is important to examine the attitudes of autism service providers toward the use of EBP in general in order to tailor dissemination and implementation of EBPs to specific contexts and professional groups. Since the study of attitudes toward EBPs is in its infancy, it is useful to compare attitudes of autism EI providers with general MH providers to gain a better understanding of how to better disseminate and implement EBPs for those providing EIs for young children with ASD. This may help ASD researchers better understand whether MH dissemination models will work for autism EI providers. The primary purpose of this study was to examine similarities and differences in attitudes toward adoption of EBPs between MH service providers and EI providers. The study examined these attitudes in a general way and not in relationship to specific practices in either field. We also examined the association of attitudes toward adoption of EBPs with provider education, race/ethnicity, and level of professional experience in providing EI services.

Method

Participants

Early Intervention Providers (EIP)—Participants were 71 EI personnel working in both in-home and center-based settings with children with ASD in San Diego and Riverside Counties in California and were not licensed mental health providers. In order to participate, a provider needed to be the primary service provider or supervisor in an educational/EI program and have at least one child with ASD in their program. Service providers were invited to participate based on their role in the development of programming for children with ASD in their care as well as their role in supervision of paraprofessionals implementing interventions with these children. EIPs were often teachers, early childhood educators, developmental or behavioral specialists. Since the term “teacher” carries connotations of licensure, the term “service provider” will be used to refer to the participants.

To assess services for children ages 0–3, agencies that had contracted with the local Regional Center to provide services to children under three with ASD were contacted for participation. Many contracted agencies provide in-home services for children with ASD. In-home agencies typically consist of a psychologist or other licensed professional who oversees the agency, program supervisors who develop individual programs for children with ASD under the supervision of the psychologist, and therapists who provide the day-to-day service under the guidance of the program supervisor. Individuals at the level of program supervisor were asked to participate. The qualifications for these individuals varies by agency, however they typically have a BA or MA level degree as well as experience in the field of ASD. In group programs for children 0–3 the lead “teacher” in the classroom was asked to participate. The types of lead providers in these programs again varies by agency and often includes early childhood educators or special educators, but these service providers are not usually required to have a teaching credential or specific degree. Once children turn three they are transitioned to school district services. For these programs the classroom teacher was recruited for participation. These individuals have to conform to district policies in terms of education and licensure.

Of 42 school districts in San Diego, 22 were serving children with ASD under the age of 5 at the time of the interview. The other 20 districts either did not currently have any children with ASD enrolled, or referred to other districts for services. Providers from 18 (81%) of the districts serving children with ASD participated in the interview. Two districts (6%) did not have time to participate and two districts chose not to participate due to confidentiality concerns. San Diego County had nine infant programs contracted to serve children with ASD. Providers from eight (89%) of these programs participated in the interview. The other

program director could not be reached. In Riverside County 16 of 22 school districts were serving young children with ASD at the time of the interview. Providers from eight districts (50%) participated. Of the remaining districts, three (19%) did not respond to numerous attempts to contact the special education director, one (6%) stated that there was not time to participate, and in four districts (24%), the special education directors agreed to participate but no response was received from the providers. Six infant programs served children in Riverside County. Four programs reported serving children with ASD and providers from each of these programs (100%) participated.

Participants were from school district ASD EI programs serving children ages 3–5 (75%) or from programs funded through California Early Start, serving children under the age of three (25%). Response rate data are not available for providers as programs did not provide information regarding the number of eligible providers in their programs. Demographic information is provided in Table 1.

Mental Health Providers (MHP)—Participants were 238 clinical and case management service providers from public sector programs providing MH services to children and adolescents in San Diego County, CA. Fifty-one of fifty-four contacted organizations agreed to participate in the study representing an organizational participation rate of 94.4%. Program managers from nonparticipant programs (k=3) cited heavy workloads and time constraints as reasons for not participating.

Eighty percent of MHP respondents were full-time employees and primary disciplines included marriage and family therapy (24.7%), social work (35.9%), psychology (24.7%), psychiatry (1.7%), and “other” (10.2%; e.g., criminology, drug rehabilitation, education, nursing, public health). Demographic information is available in Table 1.

Participant programs were publicly funded child/adolescent MH programs providing outpatient treatment (52.9%), day treatment (23.5%), case management (11.8%), wraparound services (7.8%) and inpatient treatment (3.9%). Most programs were contracted with the county to provide services (83.7%) in contrast to operating under County administration structure (16.3%).

Measures

Demographics—The provider survey included questions regarding provider demographics. Education level indicated ordered categories from low to high attainment of some high school, high school graduate, some college, college graduate, some graduate work, masters degree and doctoral degree (PhD, MD or equivalent). Participants were also asked if they held any type of specialized credentials, such as a teaching credential. This information was not ordered with the educational degree. Providers were asked about their years experience in their field as well as in their current specialty area.

Attitudes Toward Evidence-Based Practice—The *Evidence-Based Practice Attitude Scale* (EBPAS; Aarons 2004) is a very brief (15-item) measure that assesses four general attitudes toward adoption of EBP. The EBPAS does not ask about specific practices. The development of the scale was based on literature reviews, discussions with providers and researchers, item generation, data collection, and exploratory and confirmatory factor analyses. In the EBPAS, EBPs are defined for practitioners as interventions with research support that generally follow a manual or structured approach. Reliability and validity analyses were also conducted and are summarized below. The EBPAS consists of four theoretically derived subscales of attitudes toward adoption of EBP including *Appeal*, *Requirements*, *Openness*, *Divergence*, and the *EBPAS total* scale score. The *Appeal* scale represents the extent to which the provider would adopt an EBP if it were intuitively

appealing, could be used correctly, or was being used by colleagues who were happy with it. The Requirements scale assesses the extent to which the provider would adopt an EBP if it were required by an agency, supervisor, or state. The Openness scale assesses the extent to which the provider is generally open to trying new interventions and would be willing to try or use EBPs. The Divergence scale assesses the extent to which the provider perceives EBPs as not clinically useful and less important than clinical experience. The EBPAS total scale score represents one's global attitude toward adoption of EBP. The overall Cronbach's alpha reliability for the EBPAS is good ($\alpha = .77$) and subscale alphas range from .90 to .59. In regard to validity, previous studies have shown that higher provider scores on the EBPAS Openness scale are associated with more positive organizational culture and lower provider scores on the Divergence scale are associated more positive organizational climate (Aarons & Sawitzky, 2006). Both Openness and Divergence scores are also associated with leadership at the program level such that more positive leadership is associated with higher Openness and lower Divergence scale scores (Aarons, 2006).

Survey Procedure

Both groups of participants were enrolled in specific studies in San Diego County. EIPs were participants in a study of service provision for young children with ASD in early intervention. MHPs were participants in a study of organizational factors in child and adolescent MH services. Therefore survey procedures differed for each group. The special education director at each school district, program director at each EI program and a program manager at each MH program was contacted and the study was described in detail. Permission was sought to survey each intervention teacher/supervisor working with children who have ASD from EI programs and school districts, and MH service providers at MH programs. Participants received a verbal and written description of the study and informed consent was obtained prior to the survey.

MH Survey Procedure—The MH service providers were surveyed in group sessions at the program site at a time designated by their program manager. The principal investigator and/or project coordinator conducted the sessions and were available during the survey sessions to answer any questions that arose. On completion of the survey, providers handed in the packet to the survey administrator at which time the surveys were checked for completeness. Any missing responses were then completed by the respondent, if possible. A few surveys were left for providers who were not in attendance at the survey session. Such surveys were either mailed in a prepaid envelope or picked up at a later time by a research assistant.

EI Survey Procedure—Surveys were mailed to EI service providers with consent forms for a larger telephone interview. Upon completion of the EBPAS survey, providers mailed their paperwork in a prepaid envelope to the project coordinator who checked them for completeness. Any missing responses were completed by the respondent during a telephone interview. The principal investigator and/or project coordinator conducted the interviews. If a provider failed to complete the survey prior to the telephone interview, it was completed via telephone (15.4%). In this way, survey's were received from 100% of providers agreeing to participate in the larger study. All other participants completed the survey using the paper and pencil method.

Analyses

Data were examined for meeting assumptions of statistical tests and no transformations were needed. In this preliminary study simple between group analyses were conducted using t-tests and correlation analyses were conducted using Pearson Product Moment correlations.

Results

Demographic Comparisons

Demographic information is presented in Table 1. Both groups had a majority of female participants, with more males in the MHP group. Both groups had primarily Caucasian providers, although the MHP group was more diverse. The groups had similar levels of education. EI providers, compared to MH providers, were marginally older ($t = 1.95$; $p = .053$), had significantly more overall experience ($t = 3.60$; $p < .000$), and had significantly more experience in their specialty ($t = 3.52$; $p < .001$). Because the group disciplines, age groups and focus (mental health v education) varied so greatly, specific specialty areas could not be directly compared.

EBPAS Comparisons of Early intervention and mental health providers

T-tests revealed that EIP and MHP participants differed significantly on all four EBPAS subscales and the EBPAS total score (See Table 2). EIP participants had significantly higher scores on the EBPAS total score ($M = 2.951$) when compared with MHP participants ($M = 2.755$), indicating more global positive attitudes toward adoption of EBPs ($p < .001$). EIP participants also had significantly higher scores on the requirements scale ($M = 2.866$) than did MHP participants ($M = 2.426$) suggesting that EIPs were more likely to adopt a new practice if it is required by an agency, supervisor, or state. Similar results were seen for the appeal and openness scales. This implies that EIPs are more likely than MHPs are to adopt a new practice if it is intuitively appealing, “makes sense” to them, could be used correctly, or is being used by colleagues who are happy with it and that EIPs are generally more open to trying new interventions. EIPs had significantly lower scores ($M = 1.1995$) than MHPs ($M = 1.383$) on the divergence scale, indicating that EIPs were less likely than MHPs to perceive EBPs different as not clinically useful and less important than clinical experience.

Because of the differences between the MHP and EIP groups in racial/ethnic diversity, t-tests were conducted for the MHP group examining differences in scale scores for Caucasian and non-Caucasian providers. No significant differences were found for any scale based on race/ethnicity. We next examined associations of individual provider characteristics and EBPAS scores.

Individual Factors Associated with EBP Attitudes for Mental Health Providers

Zero order Pearson Product Moment Correlation analyses were conducted to examine the relationship between EIP and MHP individual provider characteristics and attitudes toward adopting EBP. Characteristics examined included provider age, years working in general education or MH, years working in more specialized services (i.e., ASD, child and adolescent mental health), and provider education level.

As shown in Table 3, for EIPs both years of general experience in special education and years of experience in specialty ASD services were significantly positively associated with the divergence scale (p 's $< .01$; see Table 3). This indicates more perceived difference between usual care and EBP for more experienced providers. Both correlations represent a moderate effect size.

Also shown in Table 3, for MHPs years of experience in specialty services was associated with lower requirements scale scores indicating a lower likelihood of adopting an EBP even when required to do so ($p < .05$). Higher educational attainment was associated with higher appeal scale scores ($p < .05$). Finally, years of general and specialty MH service experience were negatively associated with both openness scale scores and with EBPAS total scale scores (p 's $< .01$). Note that all of the correlations for MHPs represent small effect sizes and

statistical significance levels are, in part, a function of the relatively larger sample size for this group.

Discussion

The results of this study indicate that EIPs endorsed more positive attitudes toward adopting and implementing EBPs than did MHPs. EIP participants had significantly higher global positive attitudes toward adoption of EBPs, and reported that they were less resistant to adopting a new practice if it was required by their organization. Similar results were seen on the appeal and openness scales. These data imply that EIPs may be more likely than MHPs to adopt a new practice if it is intuitively appealing, makes sense, could be used correctly or is being used by colleagues who are happy with it, and that EIPs are generally more open to trying new interventions. EIPs' divergence scores indicate that they may feel less difference between their current practices and the EBPs being presented to them than the MHPs. This bodes well for implementation of new interventions as the fit between an innovation and the values of the innovation user can be an important determinant of innovation adoption (Klein & Sorra, 1996).

Both groups of providers had similar levels of education, however, the types of education they received may affect their attitudes toward EBP. It is possible that providers trained in MH programs received training in some specific practices which they view as evidence-based, or 'correct' leading them to be more sure of their own current practices and less likely to move toward adopting new practices. Many MH issues have been treated with specific practices (whether evidence-based or not) for longer than ASD has been consistently served in the EI system, therefore standard practices may be more ingrained through education and tradition. Perhaps providers trained in the education tradition are taught to be more open to innovation. Alternatively, EI providers may have had little education regarding serving children with ASD specifically, and therefore are more open to learning 'on the job'. They may be less sure of their ability to serve children with ASD appropriately and therefore more willing to try new methods.

Differences in organizational policies or strategies may affect how providers feel about innovation (e.g., Glisson, 2002). For example, providers in a previous study were more likely to score higher on the appeal scale of the EPBAS if their program had written practice policies (Aarons, 2004). Public MH programs follow very different guidelines and have a different set of federal, state and county regulations than do educational programs. The IDEA requires programs to use evidence-based practice (Turnbull, Wilcox, & Stowe, 2002), and this regulation may provide EIPs with the expectation that they will be required to bring new practices into their programs as research develops. A great deal of emphasis is placed on providing services which have been shown to have scientific merit. While there are concerns about the quality of the science in the field of education (Odom et al., 2005), which may lead to the use of new practices that are not specifically evidence based, providers may be more willing to attempt new interventions. Similar requirements are beginning to be made in MH services, but were not in effect when these data were collected. It is possible, then, that these requirements to use EBP make the EI system more open to new practices and that the EIP provider characteristics are affected by this work context (Aarons, 2005; Aarons & Sawitzky, 2006).

Population differences may also contribute to the disparity between providers. EI providers may have a more homogeneous group of clients than MH providers. Thus, it may make more sense for EI providers to focus on EBPs for the specific population they serve. In the population of EI providers described here, approximately 30% served only children with ASD. The remaining served children with a range of disabilities, but with a narrow age

range (typically under age 2 or ages 3–5). The MH providers consisted of a wider range of disciplines and perhaps a wider range client diagnoses and age ranges (Aarons, 2004). MH providers have reported that EBPs often do not address co-morbidity issues or fit the wide range of children seen in community settings (Weisz et al., 2005). It is possible that the more specific nature of the EI client population may facilitate the use of EBP by EI Providers.

Serving primarily children with ASD may also play another role in provider willingness to use EBPs. Parents of children with ASD have become very sophisticated in their understanding of EBP as well as their use of special education law to advocate for their children. Parents of children with ASD have increasingly taken school districts to court regarding the application of the *free and appropriate public education* (FAPE) mandate provided by IDEA. At least half of these cases have been resolved in favor of the families (Choutka, Doloughy, & Zirkel, 2004; Yell & Drasgow, 2000) requiring EI programs to use specific interventions. Because of this pressure, administrators of EI programs for children with ASD may feel the need to provide EBPs. Although not examined in the present study, EIPs may feel it is now common place to learn new programming as it comes along to prevent litigation.

In order to embed effectiveness trials into usual care settings as has been called for in ASD research (Lord et al., 2006), researchers must first understand the nature of usual care, including the perspectives of community stakeholders (Hoagwood, Burns, Kiser, Ringeisen, & Schoenwald, 2001; Huang, Hepburn, & Espiritu, 2003; Schwartz, 1999; Huang et al., 2003). The data provided in this project are the beginning of such an understanding. EIPs are open to learning new practices and feel that these practices are not extremely divergent from current programming. This indicates that the translation of EPBs which fit the context of usual care in EI may be acceptable to providers (Schwartz, 1999).

Some limitations to the present study should be noted. First, no observational data are available. Providers may report that they are open to using EBPs and that current practices are not very divergent from EBPs, however we do not know whether this is true in practice. Second, the sample sizes varied between the EIP and MHP providers. While statistical tests of group differences took this into account, examining the magnitude of correlation data rather than simply the significance test is important. Finally, MHPs completed the survey's in a room with other providers and EIPs completed the survey individually which could have had some effect on the results. However, we do not anticipate any differences based on this procedural variation as the EPBAS has been shown to be robust in regard to different administration methods (Aarons, McDonald, Sherhan & Walrath-Greene, in press).

There are several implications which can be drawn from these data that may assist researchers and providers in collaborating to bring EBPs to community programs for young children with ASD. First, EI providers may be quite collaborative and more willing to work with researchers to learn new methodologies. Additional research might indicate that administrators may also be willing to try new practices. Second, as providers gain more experience they are less likely to be using EBPs and are less open to them. Providing education regarding the need for changing practices throughout a career as the evidence changes may be as important as education in a specific methodology. Third, family advocacy may play a role in bridging the gap between research and practice. Researchers attempting to move EBPs into community settings may wish to educate not only providers, but families as well.

A measure of current practices that provides information on how to easily adapt EBP to fit current community practices might facilitate effective programming quickly. This will ensure a fit between contextual variables of community programs and EBPs, increasing the

probably that the intervention will be implemented effectively. Additionally, openness to learning new practices may not be enough. Research with EIPs indicates that they are willing to learn new practices, but typically don't feel they have enough training or time to train staff in EBPs to implement the procedures appropriately (Stahmer et al., 2005). Examining the process by which these new treatments are introduced can add to our understanding of how best to disseminate and implement new treatments efficiently and effectively.

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Table 1
Participant Demographic Information

		EIP N=71 (%)	MHP N=238 (%)
Gender	Female	98.6	73.9
	Male	1.4	26.1
Race Ethnicity	African American	1.4	8.3
	Asian American	1.4	5.2
	Hispanic	7.2	13.5
	Native American	4.3	.4
	Caucasian	84.1	65.1
	Other	1.4	7.4
Age	Mean age at Survey	39.94	36.98
Years	Field	12.31	8.37
Experience	Specialty Area	10.09	6.76
Education Level	Some College	4.3	3.8
	College Graduate	23.2	24.5
	Some Graduate Work	17.4	8.0
	Master's Degree	52.2	53.2
	PhD, MD or Equivalent	2.9	10.5

Note: EIP = Early intervention provider; MHP = Mental health provider.

Table 2

Comparison of Early Intervention and Mental Health Provider EBPAS Scores

EBPAS Scale	Group	Mean	SD	t
Requirements	EIP	2.866	.988	-3.669***
	MHP	2.426	.854	
Appeal	EIP	3.261	.495	-5.607***
	MHP	2.846	.692	
Openness	EIP	2.875	.687	-4.302***
	MHP	2.462	.716	
Divergence	EIP	1.199	.676	2.002*
	MHP	1.384	.682	
Total	EIP	2.951	.432	-11.293***
	MHP	2.276	.445	

Note: EBPAS = Evidence-Based Practice Attitude Scale; EIP = early intervention provider, MHP = mental health provider; SD = standard deviation;

*
 $p < .05$;

**
 $p < .01$;

 $p < .001$

Table 3
Zero Order Correlations of Provider Demographics and Evidence-Based Practice Attitude Scale Scores

	Evidence-Based Practice Attitude Scale				
	Requirements	Appeal	Openness	Divergence	Total
Early Intervention Providers					
Age	-.055	.102	-.096	.151	-.099
Yrs General Exp (Special Ed)	-.204	.138	-.063	.327**	-.228
Yrs Specialty Exp. (Autism)	-.157	.145	.069	.325**	-.146
Education	-.080	-.019	.059	-.022	-.020
Mental Health Providers					
Age	-.069	.026	-.055	.123	-.090
Yrs General Exp (Mental Health)	-.122	-.010	-.193**	.099	-.175**
Yrs Specialty Exp. (Child/Adol)	-.163*	-.045	-.182**	.117	-.209**
Education	-.064	.155*	-.119	.031	-.031

Note:

* $p < .05$,

** $p < .01$ level.