Published in final edited form as:

J Ment Health Res Intellect Disabil. 2018 ; 11(2): 111–123. doi:10.1080/19315864.2017.1408725.

They're Doing What? A Brief Paper on Service Use and Attitudes in ASD Community-Based Agencies

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Abstract

This brief paper examined the community services delivered to youth with autism spectrum disorder (ASD) in a Southern Californian city as a way to better understand ASD service provision and service attitudes. Specific goals of the study were to identify the services being delivered within the area, and how the use, perceived evidence and value attached to these services mapped onto recent systematic ASD service reviews. Forty-six providers completed the ASD Strategies and Interventions Survey (ASD-SIS), which consisted of 21 treatment strategies and 22 interventions packages commonly used with children with ASD. Participants: 1) indicated each treatment strategy and intervention package they use; and 2) rated the perceived evidence and value of each treatment strategy and intervention package they endorsed using. Results demonstrated that a variety of treatment strategies and intervention packages, both with and without an established evidence base, were reportedly being delivered to youth with ASD through community-based agencies. Additionally, a large number of providers reported not knowing the evidence of many treatment strategies and intervention packages. Finally, although no relationship was found between evidence base and use, perceived evidence, and value for treatment strategies, providers reported significantly higher use, perceived evidence and value for established intervention packages. Results demonstrate the need to more effectively disseminate strategies that can support providers in selecting services to deliver to youth with ASD, and underscore the need to better understand the community service landscape on a larger scale.

Introduction

The rising prevalence of individuals being diagnosed with autism spectrum disorder (ASD; Zablotsky et al., 2015) has been matched by rising numbers of services to support individuals with ASD. Recently, two large-scale systematic reviews evaluated the evidence base of many of these services. These reviews found a number of evidence-based practices (EBPs) that improved the core deficits and co-occurring challenges associated with ASD, benefitting both individuals with ASD and their families (National Autism Center, 2009;

Wong et al., 2015). However, the benefit of EBPs cannot be realized without translating these services into usual care, community-based settings (Brookman-Frazee et al., 2010; Brookman-Frazee et al., 2012; Dingfelder & Mandell, 2011), such as for-profit community-based organizations providing specialty services (e.g., ABA, speech and language interventions, psychotherapy) to individuals with ASD.

Barriers to the translation of EBPs into community settings have been evidenced by both parent- and provider-reported dissatisfaction with the accessibility of EBPs for children with ASD (Brookman-Frazee et al., 2012; Pickard & Ingersoll, 2015). Parents of children with ASD from a range of socioeconomic backgrounds emphasize that it is challenging to access a variety of services for their child with ASD, and particularly high-quality services with an established evidence-base (Pickard & Ingersoll, 2015). Parents' concern about service access has been substantiated when providers are observed delivering services in community settings. These studies have demonstrated that providers in community-based mental health clinics deliver EBPs inconsistently and at a low intensity (Brookman-Frazee et al., 2010).

More recently, studies have assessed providers' report of the ASD community service landscape (i.e., the amount and types of services that they deliver to families), as a way to continue to understand important gaps in service delivery. These studies have asked providers within and outside of the United States to report the services they deliver to families of children with ASD (Stahmer, 2007; Paynter et al., 2016; Wainer et al., 2017), and have demonstrated that providers know and deliver a range of services, including those with a fully established and/or emerging evidence base, as well as those with an unestablished evidence base (Stahmer, 2007; Paynter et al., 2016; Paynter & Keen, 2015). This more recent research has also examined key variables known to impact providers' delivery of EBPs within community settings (Drahota et al., 2012; Hoagwood & Kolko, 2009; Stahmer & Aarons, 2009), demonstrating that providers' service knowledge, service attitudes (i.e., perceived value of a particular service) and organizational culture (i.e., norms, values and assumptions within a service organization) are associated with reported EBP delivery (Paynter et al., 2016). Specifically, having knowledge about an EBP, having a more positive and open attitude towards EBPs, having a supervisor who mandates EBP use, and having a workplace that is more accepting of EBPs are all associated with greater EBP delivery (Paynter et al., 2016).

Taken together, this research represents key steps in understanding the community service landscape following the release of the most recent ASD service reviews, with emphasis on understanding the service landscape of school-based early intervention programs (National Autism Center, 2009; Paynter et al., 2016; Wong et al., 2015). However, in order to improve the delivery of EBPs into broader community settings, it is also important to understand how the community service landscape and providers' service attitudes may be similar and/or different across distinct geographic regions and service delivery systems (e.g., school-based early intervention service system, for-profit community-based service systems).

Given the focus of prior research, this brief paper examined the community service landscape of three types of specialty providers in a region of Southern California (San Diego County and Orange County). Specifically, the study focused on the service landscape of for-

profit community-based organizations providing specialty services (e.g., ABA, speech and language interventions) to school-aged youth with ASD. Although not an exhaustive list of service delivery systems for individuals with ASD, for-profit community based ABA, speech and language, and psychological service agencies were recruited specifically to participate in this study because of their lack of representation in the current literature as well as the number of individuals with ASD who are receiving services through these specialty provider types (Brookman-Frazee et al., 2010; Drahota et al., 2012).

Taken together, this paper aimed to better understand ASD service provision and service attitudes within this distinct region and service system, as they mapped onto the most recent systematic ASD reviews. This study also served as a preliminary pilot of the ASD Strategies and Interventions Survey (ASD-SIS) involving community providers. Specific aims included: 1) characterizing provider-reported services being used to treat youth with ASD in for-profit community-based agencies as well as the perceived evidence and value attached to these services; and 2) examining the relations between provider-reported a) use, b) perceived evidence, and c) value of intervention packages and treatment strategies with the evidence base (i.e., established or unestablished based on recent service reviews).

Method

Participants

Participants included 46 ASD providers who were recruited to participate in a larger study examining organizational characteristics and services offered through for-profit ASD community-based organizations delivering ABA, speech and language, and psychological services. Participating providers were primarily Caucasian (70.20%) and female (89.40%), and spanned a wide range of disciplines that included: 21 behavioral interventionists/behavioral analysts (45.65%), 9 clinical directors (19.56%), 9 CEO/Directors (19.56%), 4 speech and language pathologists or speech and language pathology assistants (8.70%), 1 research director (2.17%), 1 lead therapist (2.17%), and 1 other (2.17%). Eight of the providers (17.39%) were from agencies providing ABA services, 7 (15.22%) were from agencies providing speech and language services, 1 (2.17%) was from an agency providing psychological services, and 30 (65.22%) were from agencies providing multiple services (i.e., ABA and speech and language services; ABA and psychological services). Providers had a range of educational backgrounds, including those with a Ph.D. (19.56%), Master's degree (45.65%), and Bachelor's degree (34.78%). Providers reported an average of 10.24 years of experience in their field, and 5.13 years at their current agency.

Procedure

A database was developed by study personnel identifying community-based agencies providing specialty services (i.e., ABA, speech and language, and psychological services) to individuals with ASD in Southern California through web-based and printed resources as well as in consultation with local ASD researchers and community stakeholders. Agencies delivering specialty services were selected because of the lack of representation in the current literature as well as the number of individuals with ASD who are receiving services through these specialty provider types (Brookman-Frazee et al., 2010; Drahota et al., 2012).

Recruitment flyers were sent by email and mail to agency contacts and asked to distribute to direct providers within their agency. Additionally, recruitment flyers were sent through regional ASD provider listservs in order to solicit providers' participation. Finally, interested providers were contacted by study personnel regarding eligibility and participation. Potential participants were informed of the activities and time commitments involved in the study. For those who expressed interest, a brief telephone screening was conducted to evaluate basic eligibility. Participants were eligible to participate if: a) they worked at an agency that provided ABA, speech and language, or psychological services to children with ASD and b) had worked at the same agency for at least six months. Participants were provided a \$25 incentive for study participation.

Measure

All participants completed the ASD Strategies and Interventions Survey (ASD-SIS). The ASD-SIS was adapted from the Therapeutic Strategies Survey (Brookman-Frazee et al., 2009) and the Therapy Procedure Checklist (Weersing et al., 2002) by the senior author to include 17 therapeutic strategies (i.e., positive reinforcement; affect management) and 13 intervention packages (i.e., cognitive behavioral therapy; facilitated communication) specific to ASD services, based on a review of the relevant literature (National Autism Center; 2009). ASD community providers participating in a community-academic partnership (CAP) lead by the senior author provided guidance related to the addition, removal, or revision of items as well as guidance related to differentiating intervention packages from treatment strategies. Based on this guidance, we defined a *treatment strategy* as "a discrete technique directed at preventing, treating, and/or connecting challenging behaviors, speech and language difficulties, emotional conflicts, and skill deficits." An *intervention package* was defined as "a set of treatment strategies."

The final ASD-SIS consisted of 21 treatment strategies and 22 intervention packages commonly used with youth with ASD. Respondents were asked to: 1) identify which treatment strategies and intervention packages they used with youth with ASD during treatment, 2) to rate the perceived evidence for each treatment strategy and intervention package, and 3) to rate how much they value each treatment strategy and intervention package they endorsed using. Respondents rated the perceived evidence of treatment strategies and intervention packages on a 4-point scale (*0=Don't Know, 1=Limited, 2=Medium, 3=Strong*). For each endorsed treatment strategy or intervention package, participants rated how much they valued (i.e., how important) each strategy and package on a scale from 0 (*Not valuable*) to 3 (*Very valuable*).

Analytic plan.—For all analyses, the evidence base of treatment strategies and intervention packages was characterized on the basis of the National Standards Project (National Autism Center, 2009) and the National Professional Development Center on Autism Spectrum Disorders (Wong et al., 2015). Based on these reviews, each treatment strategy and intervention package was categorized as having either an established, unestablished (i.e., lacking), or undetermined evidence base. Descriptive statistics were calculated to characterize: 1) the percent of providers who endorsed using each treatment strategy and intervention package, 2) the percent of providers who reported each perceived evidence

category (i.e., don't know, limited, medium, strong) for each treatment strategy and intervention package; and 3) the average value attached to each treatment strategy and intervention package. In order to compare the association between the evidence base for each intervention package and treatment strategy with provider-endorsed use, perceived evidence, and value, an analytic approach that is appropriate for categorical ratings and the repeated ratings by providers for each strategy and package was needed. However, the current study was not powered for the use of such an approach (e.g., multilevel multinomial regression). Therefore, chi-square tests of independence were conducted to examine the relation between 1) endorsed use, 2) perceived evidenced, and 3) value with established, unestablished, and undetermined intervention packages and treatment strategies. However, these analyses do not account for repeated measures, which inflated our sample size. "Don't Know" responses were included in descriptive analyses but were excluded from analyses characterizing the relation between perceived evidence and actual evidence base of intervention packages and treatment strategies. Additionally, intervention packages and treatment strategies with a majority of respondents (50%) indicating they "don't know" the evidence base were excluded from the analysis on the relation between perceived evidence base and actual evidence base given the high degree of uncertainty reported by participants about the evidence base. Two-sided Fisher's exact tests were used to calculate p-values when expected frequencies were below 5. Cramer's V tests were calculated to determine the strength of the association for significant Chi-square tests.

Results

On average across all treatment strategies, 76.33% ($SD = 0.43$) of respondents endorsed using those with established evidence, 79.12% ($SD = 0.41$) endorsed using those with unestablished evidence, and 78.88% ($SD = 0.41$) endorsed using those with undetermined evidence. With regard to intervention packages, on average 68.31% ($SD = 0.47$) of respondents endorsed using those with established evidence, 22.96% ($SD = 0.42$) endorsed using those with unestablished evidence, and 36.30% ($SD = 0.48$) endorsed using those with undetermined evidence.

Descriptive statistics are displayed in Tables 1 and 2. Regarding treatment strategies, all participants endorsed using modeling, modifying antecedents of a behavior, and parent education and training in their work with youth with ASD. Treatment strategies that were endorsed by fewer participants included cognitive restructuring (48.90%), adult imitation (48.90%), and assigning and reviewing homework (55.60%). The intervention packages that received the most frequent endorsement of use included Communication Aids (95.60%), Discrete Trial Training (DTT) (86.70%), and Social Skills Training (86.70%). Those that were less frequently endorsed included Psychoanalysis/ Psychotherapy (0.04%), SCERTS (16.70%), Auditory Integration (17.80%), Dietary Changes (17.80%), and Music Therapy (17.80%).

When asked about the level of research evidence for treatment strategies and intervention packages, providers often endorsed "Don't Know," especially when asked about treatment strategies. Treatment strategies for which 50% or more respondents indicated "Don't Know" in response to their evidence base, included: Augmented communication/ Assisted

technology (57.8%); Exercise (50.0%); Exploring client/ family past (57.8%); Addressing parent/ family issues (57.8%); Adult imitation (55.6%); Assessing parent-child relationships (55.6%); and Assigning/ Reviewing homework (55.6%). For intervention packages, these included: Teaching Social Communication (70.5%); Articulation Therapy (79.1%); PROMPT (79.5%); Psychoanalysis/ Psychotherapy (56.8%); HANNEN Model (75.0%); and SCERTS (65.9%). Among treatment strategies, Positive reinforcement received the highest average rating of perceived evidence (86.70% reporting “Strong Evidence”). Affect management and Adult imitation both received the lowest average ratings, with only 15.60% of participants rating these strategies as having “Limited Evidence.” The intervention package that received the highest average rating of perceived evidence was DTT (84.10% reporting “Strong Evidence”) while Dietary Changes received the lowest average rating (54.50% reporting “Limited Evidence”).

When asked about value of these services, treatment strategies received a smaller range of average value ratings (1.75 – 2.85) than intervention packages (1.20 – 2.77), with most treatment strategies receiving an average value rating of 2 (i.e., “Fairly Valuable”) or higher. The most highly valued treatment strategy was Modeling ($M = 2.85$, $SD = .42$), while Adult imitation received the lowest value rating ($M = 1.75$, $SD = 1.08$). Of the intervention packages, Social Skills Training received the highest average value rating ($M = 2.77$, $SD = .42$) while Psychoanalysis/ Psychotherapy received the lowest value rating ($M = 1.20$, $SD = 1.10$).

Associations between evidence base and use, perceived evidence, and value for treatment strategies and intervention packages

Use.—There was a non-significant relation between evidence base and reported use for treatment strategies, $\chi^2 (2, N = 635) = 0.84$, $p = .67$. However, there was a significant relation between evidence base and reported use of intervention packages, $\chi^2 (2, N = 720) = 142.40$, $p < .01$, $\phi_{cramer} = .45$. Reported use was highest among established intervention packages.

Perceived evidence.—The relation between actual and perceived evidence base for treatment strategies was non-significant, $\chi^2 (6, N = 624) = 3.47$, $p = .75$. However, the relation between actual evidence base and perceived evidence for intervention packages was significant, $\chi^2 (6, N = 703) = 195.18$, $p < .001$, $\phi_{cramer} = .37$. Participants were more likely to rate established intervention packages as having a strong evidence base.

Value.—The relation between evidence base and value was non-significant for treatment strategies ($P = .52$, *Fisher’s exact test*). However, there was a higher frequency of participants endorsing established intervention packages as more valuable compared to unestablished and undetermined intervention packages ($P < .001$, *Fisher’s exact test*, $\phi_{cramer} = .28$).

Discussion

Goals of this brief paper included better understanding the provision of ASD services within a Southern California region, as well as the perceived evidence and value reported by

providers for the services being delivered. An additional aim was to explore how use, perceived evidence and value were associated with the actual evidence base for these services based on recent ASD service reviews (National Autism Center, 2009; Wong et al., 2015).

Results from a small group of specialty ASD providers demonstrated that providers endorse using more intervention packages with an established evidence base compared to those without an established evidence base. In addition to use, descriptive statistics highlighted that some providers perceived the evidence base accurately for intervention packages and treatment strategies while others reported that they did not know the evidence base or characterized it inaccurately. For those providers who did characterize the evidence base accurately, a majority tended to characterize the evidence base for established intervention packages as “strong.” On the other hand, there seemed to be more variability in how providers perceived the evidence base of established treatment strategies. Taken together, these results suggest that providers may have a more accurate perception of the evidence base for intervention packages and treatment strategies that have an established evidence base, though they tend to have a more accurate perception for established intervention packages than treatment strategies. Importantly, a large number of providers reported that they were unsure about the evidence base for treatment strategies and intervention packages, both with and without an established evidence base. Overall, no relationship was found between evidence base and use, perceived evidence, and value for treatment strategies. However, providers reported significantly higher use, perceived evidence and value for established intervention packages.

Implications.

In general, a variety of evidence-based practices are reported as being delivered, valued, and perceived as having strong evidence within this particular community setting. Additionally, fewer providers endorsed using, valuing, and perceiving strong evidence for unestablished intervention packages. This suggests some success in the dissemination of information regarding the evidence base of intervention packages. Despite this success, it is still the case that a number of treatment strategies and intervention packages without established evidence were reported as being delivered to youth with ASD and perceived to have high evidence and/or value within the same setting. This findings is important given that providers’ attitude (i.e. perceived value) toward health services is one influencing variable that predicts EBP uptake and use within community settings (Aarons et al., 2012). Given the increasing number of ASD services available for uptake, these findings suggest dissemination efforts—active, intentional effort aimed to encourage specific groups to adopt an innovation (Greenhalgh et al., 2004)—may need to be paired with a focus on education about the evidence supporting these services and clinical decision making (Galanter & Patel, 2005).

The need for more focused education was also underscored by the large number of providers who reported not knowing the evidence base of many treatment strategies and intervention packages. Interestingly, providers were more likely to report not knowing the evidence base of treatment strategies, and were less likely to endorse the perceived evidence and value for established treatment strategies. These findings may reflect current patterns of knowledge

dissemination within the ASD field, with information being more accessible or better marketed regarding manualized intervention packages but not the components that make these packages evidence-based. For example, publications of ASD clinical efficacy or effectiveness trials may name a particular intervention package and report positive clinical outcomes without specifying the discrete treatment strategies comprising the packaged intervention (Chorpita, Daleiden, & Weisz, 2005; Kasari & Smith, 2013). The need for better dissemination of the key components of intervention packages is particularly important given the research outside of the ASD field to suggest that mental health providers often mix and match intervention strategies rather than deliver intervention packages in their entirety (Stirman et al., 2013).

There are several limitations in the present study. First, this study was preliminary and, thus, represents a small sample of for-profit specialty providers delivering ABA, speech and language, and psychology services from a restricted region in the United States. Therefore, the results of this study may not generalize to community providers delivering services in other service systems, such as occupational therapy, physical therapy, tutoring, and alternative therapy services, as well as to providers delivering services in other areas of the United States. Given the small sample size, the study was not powered to compare the relation between evidence base and use, perceived evidence, and value in a manner that would control for the repeated measurement across treatment strategies and intervention packages and thus the sample size was artificially inflated. Additionally, this study was unable to measure the fidelity with which the reported services were being delivered. This is an important limitation given the known variability that exists in the quality with which EBPs are delivered in community settings (Brookman-Frazee et al., 2010). Finally, given the scope and preliminary nature of this paper, categorizing services into those with an established or un-established evidence base was limited to two recent service reviews (National Autism Center; 2009; Wong et al., 2015). Although these reviews categorize a variety of treatment strategies and intervention packages within the ASD field, there were many services that were not included in these reviews and/or had an established evidence base outside of the ASD field (i.e., Assigning/ Reviewing homework). For the purpose of this brief report, these services were categorized as “undetermined.”

Despite these limitations, the results from the present study underscore the importance of understanding the service landscape on a much broader scale and on better disseminating the evidence base of services, especially for treatment strategies, to community providers. Moreover, a focus of future work may be to provide evidence-based clinical decision making skills to providers to assist with the growing number of EBPs from which they are able to select to provide to youth with ASD. In the future, it will be important to use standardized measures to evaluate the services being delivered to youth with ASD across the United States, and this study is a preliminary step toward development of a standardized measure. Focused development and evaluation studies of psychometrically sound measures are critical future directions for autism services research. In addition to a basic picture of service delivery, future research should also collect important inner (i.e. organizational characteristics, leadership, adopter characteristics) and outer contextual factors (i.e. socio-political context, funding, interorganizational networks; Aarons et al., 2012) that may

influence the dissemination and implementation of EBPs and that may enable de-implementation of unsupported practices (Drahota et al., 2017).

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Table 1.

Intervention Package Use, Perceived Evidence (PE), and Reported Value

Intervention Package	Use	Perceived Evidence N (%)				Value
	N (%)	DK	Limited	Medium	Strong	M (SD)
<u>Evidence-Based Practices</u>						
Cognitive Behavioral Therapy	16 (35.6)	18 (40.9)	2 (4.5)	6 (13.6)	18 (40.9)	2.17 (.79)
Communication aids	43 (95.6)	4 (9.1)	0 (0.0)	11 (25.0)	29 (65.9)	2.53 (.74)
Discrete Trial Training	39 (86.7)	3 (6.8)	0 (0.0)	4 (9.1)	37 (84.1)	2.49 (.79)
Functional Behavior Assessment	38 (84.4)	10 (22.7)	1 (2.3)	4 (9.1)	29 (65.9)	2.72 (.57)
Positive Behavior Support	27 (60.0)	17 (40.9)	1 (2.3)	4 (9.1)	22 (50.0)	2.48 (.64)
Pivotal Response Training	30 (66.7)	8 (18.2)	3 (6.8)	10 (22.7)	23 (52.3)	2.63 (.56)
Social skills training	39 (86.7)	9 (20.5)	0 (0.0)	9 (20.5)	26 (59.1)	2.77 (.42)
Social Stories	35 (77.8)	10 (22.7)	7 (15.9)	19 (43.2)	8 (18.2)	2.08 (.77)
Teaching Social Communication	9 (20.5)	31 (70.5)	4 (9.1)	6 (13.6)	3 (6.8)	2.10 (.99)
<u>Un-Established Practices</u>						
Articulation Therapy	10 (22.2)	34 (79.1)	3 (6.9)	1(2.3)	5 (11.6)	2.10 (.99)
Auditory integration training	8 (17.8)	20 (45.5)	16 (36.4)	3 (6.8)	5 (11.4)	1.73 (1.19)
Dietary changes	8 (17.8)	8 (18.2)	24 (54.5)	8 (18.2)	4 (9.1)	1.21 (1.12)
Facilitated Communication	10 (22.2)	18 (40.9)	19 (43.2)	3 (6.8)	4 (9.1)	1.31 (1.14)
Massage/Touch Therapy	9 (20.0)	21 (47.7)	15 (34.1)	4 (9.1)	4 (9.1)	1.57 (1.16)
Music Therapy	8 (17.8)	16 (36.4)	18 (40.1)	7(15.9)	3 (6.8)	1.43 (1.09)
Play therapy	29 (64.4)	13 (30.2)	9 (20.9)	10 (23.2)	11 (25.6)	2.52 (.74)
PROMPT	9 (20.0)	35 (79.5)	3 (6.8)	3 (6.8)	3 (6.8)	2.10 (.88)
Psychoanalysis/Psychotherapy	2 (4.4)	25 (56.8)	8 (18.2)	6 (13.6)	5(11.3)	1.20 (1.10)
<u>Undetermined Evidence</u>						
Greenspan/DIR/Floortime	14 (31.1)	18 (40.9)	9 (20.5)	9 (20.5)	8 (18.2)	1.82 (1.07)
HANNEN Model	9 (20.0)	33 (75.0)	1 (2.3)	6 (13.6)	4 (9.1)	2.0 (1.15)
SCERTS	7 (16.7)	29 (65.9)	3 (6.8)	7 (20.5)	5 (18.2)	1.89 (1.17)
Sensory integration	26 (57.8)	9 (20.5)	15 (34.1)	11 (25.0)	9 (20.5)	2.03 (.94)

Table 2.

Treatment Strategy Use, Perceived Evidence (PE), and Reported Value

Treatment Strategy	Use	Perceived Evidence N (%)				Value
	N (%)	DK	Limited	Medium	Strong	M (SD)
<u>Evidence-Based Strategies</u>						
Affect management	30 (66.7)	19 (42.2)	7 (15.6)	10 (22.2)	9 (20.0)	2.00 (.93)
Augmented communication/assisted technology	40 (87.0)	26 (57.8)	4 (8.9)	8 (17.8)	7 (15.6)	2.65 (.62)
Exercise	29 (64.4)	22 (50.0)	3 (6.8)	12 (27.3)	7 (15.9)	1.90 (.98)
Exposure and response modification	30 (66.7)	18 (40.0)	4 (8.9)	9 (20.0)	14 (31.1)	2.06 (.94)
Modeling	46 (100)	6 (13.3)	0 (0.0)	6 (13.3)	33 (73.3)	2.85 (.42)
Modifying antecedents	46 (100)	5 (11.6)	0 (0.0)	6 (14.0)	32 (74.4)	2.78 (.55)
Parent education/training	46 (100)	6 (13.6)	2 (4.5)	8 (18.2)	28 (63.6)	2.78 (.70)
Peer training/tutoring	21 (46.7)	17 (38.6)	4 (9.1)	12 (27.3)	11 (25.0)	2.00 (.83)
Positive reinforcement	45 (97.8)	3 (6.7)	0 (0.0)	3 (6.7)	39 (86.7)	2.74 (.68)
Visual aids	44 (97.8)	5 (11.1)	1 (2.2)	8 (17.8)	31 (68.9)	2.72 (.54)
<u>Un-Established Strategies</u>						
Exploring client/family past	29 (64.4)	26 (57.8)	5 (11.1)	10 (22.2)	4 (8.9)	2.10 (.80)
Interpreting meaning of behavior	41 (93.2)	13 (28.9)	2 (4.4)	6 (13.3)	24 (53.3)	2.85 (.43)
Problem solving	42 (95.5)	17 (37.8)	4 (8.9)	5 (11.1)	19 (42.2)	2.51 (.67)
Punishment	40 (88.9)	7 (15.6)	1 (2.2)	5 (11.1)	32 (71.1)	2.14 (.91)
<u>Undetermined Evidence</u>						
Addressing parent/family issues	26 (57.8)	26 (57.8)	4 (8.9)	8 (17.8)	7 (15.6)	2.30 (.72)
Adult imitation	22 (48.9)	25 (55.6)	7 (15.6)	8 (17.8)	5 (11.1)	1.75 (1.08)
Assessing parent-child relationships	27 (60.0)	25 (55.6)	5 (11.1)	8 (17.8)	7 (15.6)	2.00 (.96)
Assigning/reviewing homework	25 (55.6)	25 (55.6)	6 (13.3)	8 (17.8)	6 (13.3)	1.81 (1.0)
Client strengths	44 (100)	16 (35.6)	1 (2.2)	9 (20.0)	19 (42.2)	2.68 (.56)
Cognitive restructuring	22 (48.9)	21 (46.7)	4 (8.9)	3 (6.7)	17 (37.8)	2.07 (.67)
Treatment goals/agenda	42 (93.3)	10 (22.7)	0 (0.0)	11 (25.0)	23 (52.3)	2.62 (.62)