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Attitudes, Perceptions, and Utilization of Evidence-Based Practices in Residential Care

Sigrid James, PhD, MSW^{*},

University of Kassel and Loma Linda University

Ronald Thompson, PhD,

Boys Town National Research Institute

Neal Sternberg, MS,

American Association of Children's Residential Centers

Elizabeth Schnur, PhD,

American Association of Children's Residential Centers

Jordan Ross, MPH,

Boys Town National Research Institute

Linda Butler, PhD,

Spurwink Services and American Association of Children's Residential Centers

Dawn Triplett, MPA,

Pressley Ridge American Association of Children's Residential Centers

Lesley Puett, MSW, and

The Village Network American Association of Children's Residential Centers

Jenny Muirhead, MA

Data Synthesis and American Association of Children's Residential Centers

Abstract

This study reports on results of a national survey conducted in the United States about the attitudes, perceptions and utilization of evidence-based practices (EBPs) in residential care settings. Seventy-five of 118 member agencies (63.6% response rate) of a voluntary national residential care association responded to a web-administered structured survey, which included the Evidence-Based Practices Attitude Scale (Aarons, 2004). Results show overwhelmingly positive attitudes toward EBPs. Concerns were reported mainly with regard to cost and impeding a client-driven practice approach. The study also showed a high degree of utilization of EBPs with over 88 percent of programs reporting the use of at least one practice they considered to be evidence-based. Altogether 53 different practices were reported although it is unknown at this point whether practices were delivered with fidelity. Behaviorally-based and trauma-focused interventions constituted the most common interventions used by residential care agencies. Practices were subsequently validated against four national clearinghouse sites, indicating that only slightly over

^{*}Corresponding Author; ssjames@llu.edu and sjames@uni-kassel.

half of all reported practices had been evaluated by at least one clearinghouse and rated as having some research evidence for effectiveness. Divergent views about what practices are evidence-based point to the need for continued discussion between the practice and research fields about conceptualizations of evidence.

Introduction

Evidence-based practice and residential care¹ may seem intrinsically incompatible at first glance. Arguably the most influential paradigm in human services at the moment (Gambrill, 2003), evidence-based practice relies on research evidence as a key determinant in clinical decision-making. While originally conceptualized as the integration of clinical expertise and best research evidence with the specific needs, values and preferences of consumers (Sackett, Rosenberg, Gray, Haynes & Richardson, 1996), the focus has increasingly shifted to the identification of specific evidence-based practices (EBPs) that demonstrate efficacy through a sufficiently strong research base (Mullen & Streiner, 2004; Rosen & Proctor, 2002). Some of these interventions were specifically developed as alternatives to residential or inpatient care for youth with emotional and behavioral disorders, and in response to the perceived weaknesses of these settings.

While research on residential care has been conducted for many years, studies seldom meet the clearly delineated standards that are at the core of 'the best research evidence' required for evidence-based practice, such as treatment standardization and the testing of effectiveness in controlled trials (Chambless & Hollon, 1998; Torrey et al., 2001). And despite positive outcomes, albeit mostly based on pre- and post-design studies, residential care remains controversial and vulnerable to ideological debates. Many concerns are not new and have been discussed at an international level for decades and even centuries (e.g., Courtney & Iwaniec, 2009; Dekker, 2001; Wines, 1880). They include a limited capacity to provide developmentally appropriate and culturally relevant community-based care (Steiker, 2005); failure to adequately engage the family of origin (Geurts, Boddy, Noom & Knorth, 2012); insufficient post-discharge planning (Barth, 2005); an inadequately trained workforce with high rates of turnover (Colton & Roberts, 2007); a high risk for abuse and revictimization (Colton, Vanstone & Walby, 2002; Hobbs, Hobbs & Wynne, 1999); and concerns about iatrogenic effects when children with behavior problems are pooled (Dishion, McCord & Poulin 1999).

A primary and more recent criticism of residential care has been the lack of a rigorously established evidence base for effectiveness in light of its high cost (Frensch & Cameron, 2002; New Freedom Commission on Mental Health, 2003). Research and funding priorities in the United States have rarely included research on residential care, which in part explains the difficulties in building a systematic and rigorous research program in this area. Instead, funding priorities have for the most part settled on the development and testing of interventions that keep youth out of residential or inpatient care and in their families and

¹In this paper we use the generic term residential care realizing that almost all terms associated with residential care, e.g. group homes, residential treatment, carry connotations in different locations and contexts. Our study is concerned with residential care settings that provide services and treatments to youth from different service systems.

communities. Given the growing number of community-based treatments that are considered to be viable and evidence-based alternatives for children with emotional and behavioral disorders, such as wraparound services (Bruns, 2008), multidimensional treatment foster care (Chamberlain, 2002), and multisystemic therapy (Henggeler, Schoenwald, Borduin, Rowland & Cunningham, 2009), efforts have been made in many youth-serving systems to drastically reduce the number of residential care facilities (Courtney & Iwaniec, 2009). As a result, many agencies have closed their doors or have reduced their residential beds while focusing on diversifying their community-based program offerings in order to ensure financial viability (Lee & McMillen, 2007).

Cross-sectional federal child welfare data indicate a reduction of the group and residential care population from 20% to 14% of the overall out-of-home care population during the past five years (Child Welfare Information Gateway, 2013). Nonetheless, a substantial number of children continue to be served in residential care settings. Yet as the threshold for residential care admission has been raised, the proportion of children with serious emotional and behavioral problems has grown as well (Hurley et al., 2009). Reports from countries such as Australia further indicate a host of unintended adverse consequences when residential care settings are drastically reduced, such as overwhelming already limited resources in family foster care and increasing entry rates into the juvenile justice system (Ainsworth & Hansen, 2005; Healy, Lundström & Sallnäs, 2011). As such, the argument made by some experts that residential care continues to maintain an important place in a complete system of care for children with varying needs (Leichtman, 2006; Whittaker, 2004), does not seem unfounded. Along with the severe needs of youth in residential care, it underscores the need for a systematic program of research on residential care (Building Bridges Initiative, n.d)

EBPs in Residential Care for Youth

Efforts to rethink the role and function of residential care in the current service climate have led some to propose the integration of EBPs into residential care settings providing services to youth with a range of emotional and behavioral problems and disorders (e.g., AACRC, 2009a; McCurdy & McIntyre, 2004; Whittaker et al. 2014). Several recent reviews (James, 2011; James, Alemi & Zepeda, 2013; James, 2014) point to a small body of research suggesting the implementation of several promising program-wide residential care models (e.g., Teaching Family Model, Positive Peer Culture, Sanctuary Model). Limited efforts are also evident to implement evidence-based client- or diagnostic-specific interventions in residential care settings. Such interventions are different from milieu-based models in that they more narrowly focus on specific diagnoses or presenting problems, such as depression or trauma. Interventions such as Trauma-Focused Cognitive Behavioral Therapy or Dialectical Behavior Therapy are in this category. Such treatments may not have been specifically developed for residential care, but have been transported into such settings. Unlike milieu-wide interventions, implementation of these discrete, targeted clinical interventions often does not require significant organizational restructuring and may have a limited effect on the overall treatment orientation of a setting. This may facilitate greater ease in the adoption of such interventions.

While the reviews document the existence of a small body of research about EBPs in residential care, there is virtually no empirical data to date to indicate what types of EBPs may be implemented and to what degree. An unpublished 2009 survey of California residential care agencies for children and youth asked providers about their use of EBPs, presenting them with a list of interventions derived from clearinghouse sites (Authors). Results suggested that almost every program used multiple, and in some cases, many EBPs. A follow-up phone survey to ascertain whether EBPs were indeed being used shed doubts on the validity of the findings. Responses highlighted how questions about the use of EBPs may be confounded by definitional disagreements and confusion about what standards to apply when designating an intervention to be evidence-based.

The current study was designed to address the empirical knowledge gap about EBPs and residential care for youth. This paper reports on results from a survey with a national sample conducted in the United States about the perceptions, attitudes and utilization of EBPs in residential care settings.

Method

Sampling Design

Given the lack of a sampling frame for residential care settings in the United States and notoriously low response rates in some surveys of residential care/child service providers (e.g., Author; Hudson, Nutter & Galaway, 1992), our survey focused on the 118 members of the largest residential care association in the U.S., the American Association for Children's Residential Centers (AACRC). The AACRC is a voluntary association (www.aacrc-dc.org) for a diverse group of residential care agencies providing services to youth in the major child-serving systems (e.g., child welfare, juvenile justice, mental health). Members pay an annual fee for membership, and can make use of AACRC's offerings, such as reduced fees at the annual conference meeting, participation in trainings and webinars. AACRC also advocates for best practices in residential settings and has published a series of position papers on various topics related to these (e.g., family engagement, non-coercive treatment environments, etc.) (AACRC, 2009b, 2014). Members are likely not representative of all residential care providers in the US due to their voluntary membership and interest in ongoing training regarding widely accepted practices in residential care settings. However, focusing on this group made the survey feasible and increased the likelihood of a reasonable return rate. Since many agencies provide different types of services for youth and families, of which residentially-based programming may just be a small part, survey participants were instructed to only answer questions with regard to the residential care portion of their program.

Survey Instrument

The survey instrument consisted of mostly close-ended items, with a few open-ended questions. It included questions about the perceived advantages and disadvantages of EBPs, general attitudes toward EBPs, types of EBPs implemented in the program, reasons for the adoption of each EBP, training obtained, continued supervision and monitoring, modifications made to an EBP and perceived barriers and successes with the EBP. This

paper is focused specifically on perceptions and attitudes toward EBPs and the types of EBPs residential providers report using in these settings. To measure attitudes toward the adoption of EBPs, the original version of the Evidence-Based Practices Attitude Scale (EBPAS), a 15-item measure with good psychometric properties, was included (Aarons, 2004). This instrument has been applied to examine use of EBPs in several different settings (Aarons, McDonald, Sheehan, & Walrath-Greene, 2007; Melas, Zampetakis, Dimopoulou & Moustakis, 2012), but not specifically residential care. The current web-based survey was pilot-tested and revised before being administered to all 118 AACRC agencies. Survey data was collected during a 4-week period between March and April of 2014. Time to complete the survey varied greatly depending on how many EBPs were used by an agency.

A particular problem that presents itself in this type of research is how to elicit accurate information about EBPs. There are several challenges that have implications for the survey design: There is no single comprehensive list of interventions that are considered to be evidence-based and definitions of EBPs vary. While there are several clearinghouse sites listing EBPs, they vary considerably based on different target audiences, leading to the inclusion or omission of interventions from some sites but not others. Clearinghouse sites also use highly variable rating and classification systems and have different thresholds for considering a practice to be promising or supported by research.

Prior studies that have investigated attitudes and utilization of EBPs by provider systems have used lists of EBPs assembled from one or more clearinghouse sites (e.g., Aarons et al., 2007; Authors). In our experience, this can result in overestimates of the utilization of EBPs since a listed intervention may sound familiar and similar enough to what is being implemented in a respondent's program to prompt a respondent to mark the intervention as being utilized. However, this method may also omit practices that are indeed being used. For this study we opted to allow participants to self-identify interventions and programs that they considered to be evidence-based using the following prompt:

We would like to ask you a few questions about your RBP's² stance toward evidence-based practice (EBP) and about evidence-based treatments or interventions that you may be using in your program....Your agency may have used none, one or multiple EBPs. They may include client-centered treatments such as Trauma-Focused CBT, Dialectical Behavior Therapy, Aggression Replacement Training, etc. or milieu-based intervention approaches such as the Teaching Family Model, Positive Peer Culture or the Sanctuary Model.

Participants were then asked: "Please list the EBPs your agency has been offering to your residential care population during the past 3 years. EBP#1 _____; EBP#2: _____; EBP#3 _____, etc.

Subsequently, a list of all indicated EBPs was generated from participant responses. Each named intervention or program was checked against four national clearinghouse sites that are primary sources of information for providers interested in delivering effective services to children and families (Soydan, Mullen, Alexandra, Rehman & Li, 2011). In consultation

²Our survey used the term residentially-based programs (RBPs) instead of residential care.

with child welfare and mental health experts, the chosen clearinghouse sites were: (1) California Evidence-based Clearinghouse for Child Welfare (www.cebc4cw.org); (2) SAMHSA's National Registry for Evidence-Based Programs & Practices (NREPP) (www.nrepp.samhsa.gov); (3) the Office of Juvenile Justice & Delinquency Prevention Model Programs Guide (OJJDP) (www.ojjdp.gov); and (4) the Center for the Study & Prevention of Violence (CSPV) (<http://www.colorado.edu/cspv/blueprints/>).

All four clearinghouse sites aim to assist practice communities in identifying and/or implementing EBPs and have standardized review and rating procedures. Each organization has a slightly different focus. The CEBC focuses on interventions and treatments that are relevant to improve the safety, permanence and well-being of children and families in the care of the child welfare system. It uses a 5-point scale to rate the scientific value of a study with the following categories – well supported, supported, promising, evidence fails to demonstrate effect, concerning practice. A 'not rated' [NR] option is also offered for practices where insufficient research exists. The NREPP reviews treatments related to mental and/or substance abuse disorders for both children and adults and uses a rating from 0.0–4.0 to appraise the scientific value with regard to six criteria across each outcome. The OJJDP focuses primarily on interventions for youth and families struggling with delinquency, and uses three ratings: effective, promising, and no effects. The CSPV provides information about model and promising programs relevant for violence and drug prevention. It also publishes a helpful program matrix that includes a long list of evidence-based treatments with information about ratings by different clearinghouses.

Analysis

Following standard inspection of data, including examination of missing data, descriptive statistics were generated using SPSS 22.0. Data examined for this analysis was almost complete. For the few items where data was missing case-wise deletion occurred, and missing data is indicated per item in each table.

Results

Characteristics of Participating Residential Care Agencies

Of the 118 member agencies, 75 (63.6%) returned completed surveys. Reporting agencies were from 26 states and served an average of 93.65 youth (SD=102.07). The number of youth served at responding agencies ranged from 8 to 650 youth.

Perceived Advantages and Disadvantages of EBPs

A set of ten items each were asked about perceived advantages and disadvantages of EBPs (see Table 1). With regard to advantages of EBPs, all items except one received strong endorsement (73.3% to 94.7%). While close to 95% of participants welcomed the structure that EBPs provide through training, protocols and guidelines, only 41.9% believed that this structure saves time and financial resources. Strong support (87.8% and 88.0%) was also indicated on items pertaining to the promotion of accountability through EBPs and the assurance of consistency through standardized treatment across the agency. Eighty-four percent believed that research support for an intervention proved that the treatment was

effective. Around three-quarters of participants agreed that EBPs reflect innovative and good practice (78.7%) and that they have been proven to result in better outcomes for clients (73.3%).

Further information about perceptions toward EBPs was provided by responses to an open-ended item asking about other perceived advantages of EBPs. These included promoting transparency, which was viewed as an advantage in both the training of staff and in communication with client families; the comparison of outcomes against benchmarks, contributing to greater 'buy-in' from families and caregivers; and consistency and clarity in training by providing a clear and common language related to a particular practice model. Improved clarity and feedback were also believed to contribute to higher morale and commitment among staff.

With regard to disadvantages, the perception that EBPs do not account for differences in a program's clientele received the strongest endorsement (62.7%). Over half (53.4%) also indicated that the training involved in EBPs is too costly and time consuming. Interestingly, only 28% felt that the intervention itself consumed too much time and resources. Nearly half of the respondents believed that EBPs were too structured and narrow, and that the narrow focus limited usefulness and generalizability to a wider client base. Close to 40% were concerned that the following of practice guidelines and procedures conflicted with a client-driven approach and nearly 30% felt that EBPs may impede cultural sensitivity in treatment. This concern was further addressed in qualitative comments. A few respondents noted that the narrow focus of EBPs was a significant barrier to scaling up a program; one respondent indicated only using the framework or general principles of an evidence-based intervention rather than the full model to resolve this dilemma. Other perceived disadvantages included: Doubts about the validity of research findings and whether EBPs would really improve client outcomes.

The sometimes prohibitive cost of both training and implementation of EBPs was raised by several respondents. Cost seems to be a primary concern when new EBPs are introduced or when staff turnover occurs. One provider specifically mentioned the challenges of programs in rural areas obtaining training and assistance in the implementation of EBPs.

Provider Attitudes about the Adoption of EBPs

Table 2 presents means and standard deviations for the items from the EBPAS, which measured agreement with 15 statements on a 5-point Likert scale from 0 (not at all) to 4 (to a very great extent). Cronbach's alpha for the overall scale was calculated to be 0.72, which is slightly below the 0.77 reported in Aarons 2004 study. Prior work has identified four underlying subscales (Aarons, 2004): Requirement, Appeal, Openness, and Divergence. Items related to requirements by external sources had the highest endorsement with participants agreeing to a great to very great extent that the practice was implemented due to requirements by the state, the agency or the supervisor ($\alpha=0.82$). Statements related to the appeal of the practice ranged from 2.58 (SD=0.99; intuitively appealing) to 3.12 (SD=0.82; feeling one had sufficient training to implement the practice) ($\alpha=0.75$). Openness toward EBPs ranged from a moderate score of 2.48 (SD=1.11) to being willing to try interventions by researchers to a great extent ($M=2.95$; $SD=0.74$) ($\alpha=0.70$). Four items measured

perceptions that were divergent from a research-oriented approach to treatment, and participants indicated agreement from a moderate to a great extent ($\alpha=0.76$).

Number and Types of EBPs

Initial data inspection of 60 practices listed by respondents led to the removal of seven: four practices, which upon report by the agency were not provided to their residential care population (Multisystemic Therapy [MST],³ Multidimensional Treatment Foster Care [MTFC], Parent-Child Interaction Therapy [PCIT], and Keeping Foster and Kin Parents Trained and Supported [KEEP]); two practices (CANS and UCLA-PTSD), which are screening or diagnostic tools rather than intervention practices; one practice (systematic desensitization), which was merged with cognitive behavioral therapies as it is a specific behavioral technique. This yielded a final list of 53 practices reported by 66 agencies.

A few additional notes are warranted: Practices such as Managing and Adapting Practice (MAP) and Outcomes/Feedback Informed Care seem to be tools to improve decisions about practice rather than practices or interventions themselves. However, since they are programs that are adopted to improve the research-base of care in residential settings, they were left in the list. It may have been further possible to collapse practice groups, especially those that seemed rather generic, such as Trauma Informed Care. However, we wanted to list as many of the practices named by participants as possible to provide insight into how agencies conceptualize evidence-based practice.

Of the 53 practices, 28 (52.8%) had been evaluated by at least one of the four clearinghouse sites and rated as having some research evidence for effectiveness. The remaining 25 practices or programs did not appear on the reviewed clearinghouse sites or only received a 'not rated' classification. Note that there are several reasons other than its evaluated efficacy that a practice might not have been listed on a clearinghouse site. These may include: (1) The practice was not evaluated because its purpose did not sufficiently converge with the aims and outcomes of interest to the clearinghouse; (2) the practice may not have been reviewed yet; (3) the practice did not meet the clearinghouse's basic criteria for commencing a review. Not being included on one of the clearinghouse sites does not necessarily mean that a practice does not have an evidence base for effectiveness, and it is possible that other organizations or clearinghouses would endorse the practice as evidence-based or that the clearinghouses used would endorse the practice at a later date.

Table 3 presents all reported practices, the number of residential care settings that reported using them, and the rating (if any) given by one of the clearinghouse sites. Practices with an asterisk have been rated by at least one clearinghouse as being effective or at least promising.

Results indicate that by far the two most commonly utilized interventions are Dialectical Behavior Therapy (used by 29 programs) and Trauma-Focused CBT (used by 26 programs), both of which are cognitive behavioral interventions. Aggression Replacement Training

³Two specialized forms of MST — MST-FIT and MST-PSB — were however provided to agencies' residential care population and were therefore left in the count (see Table 3).

(ART[®]), another intervention that utilizes behavioral principles, was used by 13 agencies. The generic term ‘CBT’ was reported 13 times by agencies without further specification of the type of CBT model. The Alternatives for Families CBT Model named by one agency was listed separately. This means that practices belonging into the larger group of CBT interventions constituted the primary approach among the residential care providers participating in this survey. Collaborative Problem Solving and Attachment, Regulation and Competence were next in frequency (ten and six times, respectively); however, neither was evaluated by any of the four clearinghouse sites. The remaining interventions were listed five times or fewer with 34 practices only appearing once.

With regard to the number of practices listed by each agency, nine (12%) did not indicate using any, about one-third (32.0%) utilized one or two practices, 36% used three practices and 20% used four or five practices (see Table 4). If we consider only practices listed by any of the four clearinghouse sites, then 16% of the agencies did not use any practice, over one half (56%) used one or two practices, 23% used three practices and 5% used four.

Discussion

This paper is the first publication to our knowledge that provides empirical data on the use of EBPs in residential care settings and the attitudes and perceptions of residential care providers towards interventions that are empirically supported. Results show overwhelmingly positive attitudes toward EBPs and a high degree of utilization, with over 88 percent of programs reporting the use of at least one practice they considered to be evidence-based. The structure and standardization that EBPs offer were regarded as helpful in promoting accountability and consistency across an agency. This is noteworthy since an early criticism of manualized interventions was that they were perceived as a “cookbook” approach, denigrating professional expertise (e.g., Muller & Streiner, 2004). Instead, providers reported that the structure and guidelines provided through EBPs engendered confidence in the intervention. However, the majority did not regard structure and guidelines as a cost-cutting tool. At the same time concerns were expressed by a majority that the standardization inherent to EBPs may undermine a client-oriented treatment approach by not accounting for individual differences. This suggests that the structure associated with manualization is perceived as beneficial yet also constraining. The constraining aspect of EBPs is an argument that undergirds the ‘common elements approach’ as first described by Chorpita and colleagues (Chorpita, Daleiden & Weisz, 2005). The common elements framework seeks to broaden implementation flexibility based on use of narrower practices (e.g., social skills training) which have empirical evidence for certain presenting problems. At the same time it promotes flexibility to address ‘soft’ or process components such as the client-clinician relationship, motivation, and therapist factors that are common to all therapeutic interventions and account for treatment outcomes to a greater extent than specific model elements (Duncan, Miller, Wampold & Hubble, 2010).

Agencies were also largely positive with regard to the outcomes of EBPs, feeling they produced better results and promoted good practice. Although this may seem like an encouraging finding at first glance, it needs to be viewed critically since very little to date is known about client outcomes in residential care settings where EBPs are implemented. Only

a few outcome studies of a limited number of EBPs in residential care have been published to date, and a review of these studies paint a mixed picture (James, 2011; James et al., 2013). While studies have mostly determined positive effects with regard to many target outcomes, findings of existing studies are confounded by significant methodological weaknesses. From a scientific standpoint, no definitive conclusions can be drawn at this time about the effectiveness of specific EBPs in residential care settings. Positive perceptions toward outcomes may at this point reflect overly confident beliefs about outcomes associated with EBPs in residential care. However, they may also be indicative of growing penetration of the evidence-based paradigm within the practice and policy community. Evidence-based practice may have come to be automatically equated with effectiveness and improved outcome. On the one hand, this can be regarded as a positive development since it may signal greater openness toward evidence-based interventions and perhaps research in general. However, growing acceptance and openness toward evidence-based practice should not imply having to give up needed and critical discussion about specific interventions and the challenges involved in implementing EBPs in specific settings. This is particularly necessary within the context of residential care since EBPs were in part developed as alternatives to residential care, and questions about the legitimacy of the use and fit of practices designed for community-based settings in non-community-based settings, such as residential care, are valid and should further be addressed.

Our study cannot determine how much the positive perceptions expressed by study participants are a function of social desirability and/or perceived pressure to adopt evidence-based terminology. Survey findings showed that adoption and utilization of EBPs are at least in part a response to requirements imposed by states, agencies, and/or supervisors. However, the general openness toward the adoption and utilization of EBP is a welcome development that could be used to build a research agenda with concomitant pursuit of research funding. The field needs a growing number of rigorously conducted evaluations and outcome studies about both the implementation and effectiveness of EBPs in a variety of residential care contexts serving different target populations. The field's interests will not be furthered by continuing to conduct pre-post studies with non-standardized measures and highly biased sampling designs. Randomized trials are the gold standard to determine the effectiveness of an intervention. While certainly more challenging in complex multi-component settings, prior work has shown that the testing of interventions in randomized trials is possible in residential care settings within the context of carefully planned and adequately funded studies (e.g., Godley, Godley, Dennis, Funk & Passetti, 2006; Slesnick & Prestopnik, 2009; Trout et al., 2013). It deserves noting that client-specific interventions (e.g., DBT, TF-CBT) in contrast to milieu-based approaches (e.g., Teaching Family Model) may be more amenable to be tested in experimental studies. Regardless of the intervention or approach, however, collaborative partnerships between residential care providers and researchers will be essential to accomplish this task.

With regard to the types of interventions used by survey participants, a number of observations can be made. We specifically opted for a methodological approach that allowed participants to name interventions they considered to be evidence-based. While providing insight into what participants viewed as evidence-based, the approach resulted in an overestimate of EBPs. Over half of the 53 reported practices had not been reviewed or

classified as an evidence-based practice by any of the four clearinghouses used in our survey. Further exploration showed that some of these practices were indeed listed on state-specific websites that promote best practices and/or EBPs, and as such may have contributed to providers' perceptions that they are indeed implementing an evidence-based practice. This addresses a fundamental dilemma that continues to vex this field. What is evidence? What constitutes sufficient evidence? Who has the right to decide what counts as evidence (e.g., Witkin & Harrison, 2001)? Are variable views on the evidence for different interventions simply reflective of discrepancies in how the practice, policy and research communities apply the evidence-based label (DiGennaro Reed & Reed, 2008; Rycroft-Malone et al., 2004)? Or do they reflect misunderstandings and lack of information on the part of the practice community about the scientific threshold necessary to establish a sound cause-effect relationship?

It may be helpful at this point to briefly revisit how evidence-based practice was originally conceptualized. Evidence, as formulated by Sackett and his colleagues (1996), implied the integration of three key components: solid research evidence, best clinical practice and client preferences. This integrative process presumed a case-based approach, intended to aid clinicians (i.e., originally physicians) in the explicit consideration of all three elements toward the formulation of an optimal and sound treatment plan. Since its formulation in the 1990s, evidence-based practice has come to be increasingly identified with specific practices which have been established as effective through scientific research according to a clear set of explicit criteria (Drake et al., 2001; Torrey et al., 2001). While the soundness of the research constitutes an essential aspect of evidence-based practice, disregarding the integrative aspect of the evidence-based process, may not optimally serve our common agenda of improving services for clients. Unfortunately, it is this integrative process that has received only minor attention in the literature. Findings from this survey substantiate that conceptual confusion remains about the terminology 'evidence-based,' and that a dialogue between the practice and research community needs to be reactivated.

Several other observations can be made about the specific types of practices reported in this survey: First, two-thirds of the agencies reported using more than one practice, with one-fifth using four or five. Processes for the simultaneous or parallel implementation of multiple interventions in one setting would be an interesting area of further inquiry. Secondly, only two milieu-based residential care models were listed that were also evaluated by clearinghouse sites: Teaching Family Model (by 5 agencies) and the Sanctuary Model (by 4 agencies). Risking Connection[®] is a milieu-based model that is based on a relational framework to teach skills to survivors of traumatic experiences, and received a 'not able to rate' classification by one clearinghouse (www.riskingconnection.com). Children and Residential Experiences (CARE) is another relatively new research-informed model developed by the Residential Child Care Project at Cornell University that was listed by one agency, but has not yet been reviewed by either of the four clearinghouse sites. It is unknown what overall models the other agencies used or whether they even followed a particular or consistent treatment orientation.

Thirdly, all agencies indicating use of an evidence-based practice used at least one practice that had a cognitive and/or behavioral orientation. Forty-one agencies (62.1%) also indicated

implementing a practice aimed at addressing trauma. It would be interesting to determine whether these models were chosen to address problems that presented the greatest challenge for providers or because externalizing behavior problems and trauma are simply most prevalent in residential care populations.

Finally, a few interventions were listed by respondents, whose use in residential care has to be questioned. Interventions like Multisystemic Therapy (MST) or Multidimensional Treatment Foster Care (MTFC) were specifically designed as alternatives to residential care and use in residential settings would violate core concepts of the models. It is unlikely that a residential care setting would be certified to become, for instance, an MST provider for its residential care population. As such, the use of the MST label would be inaccurate; an agency may be attempting to implement MST-based concepts, but this does not mean that they are indeed delivering MST. The use of treatments that explicitly contraindicate use in residential care raises the question of how much residential care providers consider treatment adherence to be important, and to what extent they attempt to deliver practices with fidelity. It is important to note in this context that this paper does not address issues of fidelity. Self-reporting use of an EBP does not imply that the intervention was implemented with any degree of fidelity. Given evidence that some providers used interventions in ways clearly not intended by the developers of the intervention, it is highly likely that some if not many of the EBPs listed here were not treatment adherent. To determine this, information about training and certification, use of manuals, and adherence checks for each of the practices would have to be carefully analyzed. While our study collected these data, a significant degree of missing data made such analyses difficult. However, we hope to further investigate this issue in subsequent analyses with a restricted sample.

Limitations

Besides the limitations already addressed throughout the discussion, a few additional comments are warranted. This is a descriptive study with a relatively small and self-selected sample. While the response rate for these AACRC members was good, membership in a large national association may represent agencies that are better funded and more open to innovation rather than be representative of the larger residential community.

Lastly, given the small sample and descriptive nature of this first paper, we did not conduct a factor analysis on Aarons' Evidence-based Practice Attitude Scale (EBPAS). Reliability coefficients for previously identified subscales as well as the overall scale were good, but further analytic work will be necessary to confirm the factor structure reported by Aarons for a sample of residential care providers.

Conclusion

This study confirms that residential care settings are actively wrestling with the delivery and implementation of EBPs. The openness and positive perceptions of providers toward interventions that are supported by research is encouraging, and should serve as impetus toward the building of provider-research partnerships. Such partnerships will be necessary to reconcile the ambitious research agenda that some experts in the residential care have written and dreamed about for years (e.g., Leichtman, 2006; Whittaker, 2004) with the

realities of residential care in the field. Many questions remain about EBPs in residential care, from examining how EBPs support residential care's overarching goals of safety and relationships to determining the effectiveness of specific interventions and understanding how they can be delivered with fidelity and scaled up. Only research that is committed both to rigor and to measuring the complexities of residential care settings will advance this field, and will be able to determine whether EBPs will shape the future of residential care.

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Table 1

Perceived Advantages and Disadvantages of EBPs by Residential Care Providers *

Do you agree that this statement is an advantage of EBP?	Yes (%)	No (%)	DK (%)
The existing research base proves that the treatment is effective	63 (84.0)	7 (9.3)	5 (6.7)
The structure provided through training, treatment protocols and guidelines gives us confidence as a provider	71 (94.7)	3 (4.0)	1 (1.3)
The treatment has been proven to result in better outcomes for clients.	55 (73.3)	8 (10.7)	12 (16.0)
EBP promotes accountability (n=74)	65 (87.8)	8 (10.8)	1 (1.3)
The structure provided through treatment protocols and guidelines saves time and financial resources (n=74)	31 (41.9)	27 (37.5)	16 (21.6)
EBP is innovative and promotes good practice.	59 (78.7)	10 (13.3)	6 (8.0)
EBP ensures consistent and standardized treatment across the agency	66 (88.0)	8 (10.7)	1 (1.3)
If a practice is considered evidence-based, it is more likely to be accepted as billable service. (n=74)	54 (73.0)	10 (13.5)	10 (13.5)
If a practice is considered evidence-based, it can be easily marketed for political purposes and/or funding requests.	62 (82.7)	3 (4.0)	10 (13.3)
Using an EBP in RTCs adds to the existing field's knowledge base.	63 (84.0)	6 (8.0)	6 (8.0)
Do you agree that this statement is a disadvantage of EBP?			
EBP does <u>not</u> account for differences in our clientele (i.e., diagnosis, behaviors, home situation, age, etc.)	47 (62.7)	22 (29.3)	6 (8.0)
EBP is too structured and does not allow for flexibility in treating our clients.	35 (46.7)	32 (42.7)	8 (10.7)
The research results are not generalizable to clients in other settings. (n=72)	34 (47.2)	28 (38.9)	10 (13.9)
Using an EBP, limits the use of other, less well-studied treatments.	27 (36.0)	44 (58.7)	4 (5.3)
Using an EBP consumes too much time and too many resources. (n=72)	20 (27.8)	47 (66.7)	4 (5.6)
The training involved with EBP is too costly and/or time consuming. (n=73)	39 (53.4)	31 (42.5)	3 (4.1)
The guidelines and procedures that must be followed conflict with a "client-driven" approach.	29 (38.7)	42 (56.0)	4 (5.3)
EBPs are <u>not</u> culturally competent.	23 (30.7)	33 (44.0)	19 (25.3)
When using an EBP, measurable positive client outcomes are expected with every client.	22 (29.3)	46 (61.3)	7 (9.3)
The narrow focus of the research limits the usefulness with a wide client base. (n=74)	35 (47.3)	33 (44.6)	6 (8.1)

* Note.- Based on N=75 unless otherwise indicated

Table 2

Provider Attitudes toward the Adoption of EBPs (n=65)

	Mean	SD	α
<i>Requirements</i>			0.82
It was required by your agency	3.31	0.93	
It was required by your supervisor	3.00	1.10	
It was required by your state	3.55	0.79	
<i>Appeal</i>			0.75
It made "sense" to you	2.80	0.94	
It was intuitively appealing	2.58	0.99	
You felt you had enough training to use it correctly	3.12	0.82	
It was being used by colleagues of other residential care settings who were happy with it	2.89	0.75	
<i>Openness</i>			0.70
We are willing to try new types of therapy/interventions even if we have to follow a treatment manual	2.73	0.89	
Our program likes to use new types of therapy/interventions to help our clients	2.58	0.70	
We are willing to use new and different types of therapy/interventions developed by researchers	2.95	0.74	
We would try a new therapy/intervention even if it were very different from what we were used to doing	2.48	1.11	
<i>Divergence</i>			0.76
Research based treatments/interventions are <u>not</u> clinically useful	3.43	0.84	
Our program would <u>not</u> use manualized therapy/interventions	3.45	0.94	
Clinical experience is more important than using manualized therapy/interventions	2.42	0.98	
We know better than academic researchers how to care for our clients	2.34	1.08	
<i>EBPAS total</i>	2.91	0.41	0.72

Table 3

Types of Practices Used by Agencies

Practice	Number (%) of Agencies Using Practice	Clearinghouse Ratings			
		CEBC	NREPP	OJJDP	Blueprints
Dialectical Behavior Therapy (DBT) *	29	---	3.4	---	---
Trauma-Focused CBT (TF-CBT) *	26	well supported	3.7	effective	---
Aggression Replacement Training (ART®) *	13	Promising	---	effective	---
Cognitive Behavioral Therapy (CBT) *	13	from promising to well supported	3.6–3.7	effective	---
Collaborative Problem Solving	10	---	---	---	---
Attachment, Regulation, Competence (ARC)	6	---	---	---	---
Managing and Adapting Practice (MAP)	6	---	---	---	---
Eye Movement and Desensitization Reprocessing (EMDR) *	5	well supported	3.2	promising	---
Seeking Safety *	5	promising	2.2	---	---
Teaching Family Model *	5	promising	---	---	---
Applied Behavior Analysis (ABA)	4	---	---	---	---
Sanctuary Model ® *	4	promising	---	---	---
Trauma Informed Care	3	---	---	---	---
Nonviolent Crisis Intervention ®	3	NR	---	---	---
Fairy Tale Model *	2	promising	---	---	---
Functional Family Therapy (FFT) *	2	supported	3.3	effective	Model Program
Motivational Interviewing *	2	well supported	3.5	---	---
Risking Connection®	2	NR	---	---	---
Therapeutic Crisis Intervention	2	NR	---	---	---

Practice	Number (%) of Agencies Using Practice	Clearinghouse Ratings			
		CEBC	NREPP	OJJDP	Blueprints
Triple P *	2	supported	2.9	---	Promising Program
Alternatives for Families: A CBT Model *	1	promising	---	promising	---
Brief Strategic Family Therapy *	1	supported	3.3	promising	---
Children and Residential Experiences (CARE)	1	---	---	---	---
Circle of Courage	1	---	---	---	---
Common Sense Parenting *	1	promising	---	promising	---
Depression Treatment Quality Improvement (Youth Partners in Care) (DTQI) *	1	---	3.4	---	---
Equine Assisted Psychotherapy and Equine Assisted Learning (EGALA)	1	---	---	---	---
Family Search and Engagement	1	---	---	---	---
Grief and Loss Curriculum	1	---	---	---	---
Integrative Treatment of Complex Trauma	1	---	---	---	---
Interpersonal Psychotherapy *	1	promising	4.0	---	---
Juvenile Cognitive Intervention Program (Mendota Juvenile Treatment Center Program) *	1	---	2.9	promising	---
Moral Reconation Therapy (MRT) *	1	---	2.1	---	---
Multisystemic Therapy-Family Integrated Transitions (MST-FIT) *	1	---	---	promising	---
Multisystemic Therapy-Problem Sexual Behaviors (MST-PSB) *	1	well supported	3.8	promising	Model Program
Neurosequential Model of Therapeutics	1	---	---	---	---
On the Way Home	1	---	---	---	---
Outcomes/Feedback Informed Care (ACORN tool) *	1	---	3.1	---	---
Positive Behavioral Interventions and Support Model (PBIS) *	1	---	2.9	---	---

Practice	Number (%) of Agencies Using Practice	Clearinghouse Ratings			
		CEBC	NREPP	OJJDP	Blueprints
Parent-Child Interaction Therapy *	1	well supported	3.6	promising	Promising Model
Project Venture *	1	---	2.2	---	---
Psycho-Educational Treatment Model (PEM)	1	---	---	---	---
Psychodynamic Psychotherapy	1	---	---	---	---
ReSTART	1	---	---	---	---
Social Communication - Emotional Regulation - Transactional Support (SCERTS)	1	---	---	---	---
Sexual Issues Curriculum	1	---	---	---	---
Solution Based Casework *	1	promising	---	---	---
Structured Psychotherapy for Adolescents Responding to Chronic Stress (SPARCS)	1	NR	---	---	---
Structured Sensory Intervention for Traumatized Children, Adolescents and Parents (SITCAP-ART) *	1	promising	2.4	---	---
Trust-Based Relational Intervention (TBRI®)	1	NR	---	---	---
Trauma Systems Therapy	1	NR	---	---	---
Why Try	1	---	---	---	---
Wraparound (High Fidelity) *	1	promising	---	---	---

Note.- Practices with an * were reviewed and rated as at least somewhat effective by one of the four clearinghouse sites.

Table 4

Number of Practices Used by Agencies (N=75)

Number of Practices	Agencies Reporting Practices N (%)	Agencies Reporting Practices on Clearinghouse Sites N (%)
0	9 (12.0)	12 (16.0)
1	16 (21.3)	24 (32.0)
2	8 (10.7)	18 (24.0)
3	27 (36.0)	17 (22.7)
4	8 (10.7)	4 (5.3)
5	7 (9.3)	---