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FUTURE DIRECTIONS

Advancing the Scientific Foundation for Evidence-Based Practice in Clinical Child and Adolescent Psychology

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Evidence-based practice (EBP) has become a central focus in clinical child and adolescent psychology. As originally defined, EBP in psychology is the integration of the best available research evidence, patient characteristics, and clinical expertise. Although evidence-based perspectives have garnered widespread acceptance in recent years, there has also been some confusion and disagreement about the 3-part definition of EBP, particularly the role of research. In this article, we first provide a brief review of the development of EBP in clinical child and adolescent psychology. Next, we outline the following 4 points to help clarify the understanding of EBP: (a) knowledge should not be confused with epistemic processes, (b) research on clinician and client factors is needed for EBP, (c) research on assessment is needed for EBP, and (d) the 3-part conceptualization of EBP can serve as a useful framework to guide research. Based on these principles, we put forth a slightly revised conceptualization of EBP, in which the role of research is expanded and more clearly operationalized. Finally, based on our review of the literature, we offer illustrative examples of specific directions for future research to advance the evidence base for EBP in clinical child and adolescent psychology.

Following the American Psychological Association's (APA) Presidential Task Force on Evidence-Based Practice (2006) statement, numerous position papers, empirical articles, chapters, and commentaries have been authored on the subject of evidence-based practice (EBP) in psychology. Throughout this time, researchers and practitioners in clinical child and adolescent psychology (CCAP) have influenced, and been influenced by, the advancement of EBP concepts and discussions. Although substantial progress can be discerned, the literature on evidence-based assessment (EBA) and treatment (EBT) with children and adolescents still reflects some confusion and disagreement on the definition of EBP in psychology while highlighting directions for advancing the EBP in CCAP. The purpose of the present article is to reflect on the extant work related to EBP in CCAP, providing a perspective on what work has been done and generating a map to guide where the professional field might go next. To this end, we begin with an

overview of the EBP movement in psychology as related to CCAP. Next, we outline some points of clarification and offer a slightly revised framework of EBP that emphasizes and clarifies the role of research. Finally, we conclude with a brief review of the recent work in this area, with recommendations for future directions for research in assessment and treatment in each of the three "legs" of EBP in CCAP.

EVIDENCE-BASED PRACTICE IN CLINICAL CHILD AND ADOLESCENT PSYCHOLOGY

"Evidence-based practice" has become the spirit of the times in many professions serving the public, including medicine, nursing, occupational therapy, audiology and speech pathology, and social work, as a few examples. Psychology's participation in this zeitgeist was codified with APA's Presidential Task Force on Evidence-Based Practice (2006) statement on EBP in psychology (EBPP). Although a great deal has been written about topics related to EBPP—such as its execution in different settings, with various clientele, and with treatments to address a range of referral problems (e.g., Hays, 2009; Hunsley, 2007)—

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the singular definition of EBPP is relatively simple: “the integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preferences” (APA Presidential Task Force on Evidence-Based Practice, 2006, p. 273). The Task Force’s statement goes on to explain that the purpose of EBPP is “to promote effective psychological practice and enhance public health by applying empirically supported principles of psychological assessment, case formulation, therapeutic relationship, and intervention” (p. 273).

Although the precise phrasing and utility of EBPP’s definition continues to be a matter of some debate, there now seems to be general endorsement of the basic framework just described (Prinstein, 2012; Spring, 2007). Formally or otherwise, the principles of EBPP are supported by APA (2006) and many of its divisions, the Association of Psychological Science (Lilienfeld, 2013), the Association of Behavioral and Cognitive Therapies (2015), and the Society for a Science of Clinical Psychology (Oltmanns & Krasner, 1993). Likewise, the emphasis on science-practice integration is shared among the various training councils, academies, and accrediting bodies (Academy of Psychological Clinical Science, 2015; APA, 2015; Commission on Accreditation, 2015; Council of University Directors of Clinical Psychology, 2015; Psychological Clinical Science Accreditation System, 2015). Often overlooked is that the differences among these entities are chiefly related to questions of *balance* or *emphasis* on science versus practice, but not on the question of *whether* research evidence should guide practice. Indeed, as McFall (1991) asked, who would really argue for an unscientific clinical psychology?

Historically, CCAP has evolved at the forefront of the early EBPP movement, developing from a psychoanalytic/psychodynamic theoretical orientation to embracing more empirically supported approaches, such as cognitive-behavioral therapy (CBT; cf. Kazdin, Siegel, & Bass, 1990; Koocher & Pedulla, 1977; Tuma & Pratt, 1982; Williams & Gordon, 1974). This shift was forcefully articulated in the specialty’s adoption of the empirically supported treatments “movement,” occurring within clinical psychology and more generally in professional psychology (Chambless & Ollendick, 2001). Furthermore, the symbiotic relationship between research and practice has been a central component of all definitions of CCAP from the beginning (American Board of Professional Psychology, 2015; Commission for the Recognition of Specialties and Proficiencies in Professional Psychology, 2015; Council of Specialties in Professional Psychology, 2015; Finch, Lochman, Nelson, & Roberts, 2012; Jackson, Alberts, & Roberts, 2010).

Although a great deal has been spoken and written on EBP in CCAP, attempts to translate this discussion into concrete efforts to benefit practitioners and scientists are less common. Notable exceptions to this rule include the Society of Clinical Child and Adolescent Psychology

(Division 53), and its flagship publication, the *Journal of Clinical Child and Adolescent Psychology (JCCAP)*. Indeed, advancing the evidence base for CCAP has long been a central priority for the Society of Clinical Child and Adolescent Psychology and *JCCAP* (e.g., Frick, 2007; Mash & Hunsley, 2005; Prinstein, 2012; Silverman, 2002; Silverman & Hinshaw, 2008; see also Association for Behavioral and Cognitive Therapies, & Society of Clinical Child and Adolescent Psychology, 2015). More recently, periodic “evidence base updates” provide more frequent syntheses of the literature on EBA and EBT in specific areas (Prinstein, 2012; Southam-Gerow & Prinstein, 2014). In addition, there are now several authoritative volumes on EBT with children and adolescents (e.g., Fonagy, Cottrell, Phillips, Glaser, & Allison, 2015; Steele, Elkin, & Roberts, 2008; Weisz & Kazdin, 2010).

These recent developments are not idiosyncratic to CCAP. A number of special issues, sections, or series devoted to EBPP, EBT, or EBA were published in affiliated areas over the past 20 years. The *Journal of Pediatric Psychology* and the new *Clinical Practice in Pediatric Psychology* released special issues and article series on EBT (Carter, 2014; Kazak, 1999; Palermo, 2014) and EBA (Cohen et al., 2008) in pediatric psychology, and the *Journal of Consulting and Clinical Psychology* devoted a special issue to advancing efficacy and effectiveness research in CCAP EBPP (La Greca, Silverman, & Lochman, 2009). Similar common threads can be seen in a diverse sample of journals, including *Clinical Psychology: Science and Practice* (Jensen-Doss, 2015), *Psychological Assessment* (Hunsley & Mash, 2005), *Counselling Psychology Review* (Milton, 2003), *Journal of Clinical Psychology* (Thorn, 2007), *Psychotherapy* (Norcross & Lambert, 2011), and *School Psychology Quarterly* (Carlson & Christenson, 2005; Gutkin, 2002). Outside of academia, numerous efforts have been made to help disseminate EBT and assessment tools and information via the Internet (e.g., American Psychiatric Association, 2015; Association for Behavioral and Cognitive Therapies, & Society of Clinical Child and Adolescent Psychology, 2015; National Child Traumatic Stress Network, 2015; National Registry of Evidence-Based Programs, 2015). Other exciting new developments are currently under way (e.g., the Society of Clinical Child and Adolescent Psychology will start publishing a new practice journal entitled *Evidence-Based Practice in Child and Adolescent Mental Health*).

In sum, numerous indicators suggest that EBP has been embraced in a variety of ways within psychology and particularly in the specialty of CCAP (Frick, 2007; Jackson et al., 2010; Jackson, Wu, Aylward, & Roberts, 2012; Prinstein, 2012; Prinstein & Roberts, 2006). However, this apparent “embrace” has been accompanied by some misinterpretations and confusion regarding APA’s (2006) tripartite

conceptualization of EBPP. In our view, this confusion has limited the potential of the EBPP framework as a common tool for advancing the overall evidence base in CCAP. Next we outline our assessment of this apparent misconception and offer an integrative discussion of EBPP in relation to assessment and treatment research in CCAP.

TOWARD CONCEPTUAL AND TERMINOLOGICAL CLARITY

The Misunderstanding Surrounding EBPP

As just described, EBTs are but one of three legs supporting the “three-legged stool” of EBPP (e.g., Steele et al., 2008), the other two being clinician expertise and client preferences/values (APA Presidential Task Force on Evidence-Based Practice, 2006). What this three-legged stool metaphor implies is that each leg is necessary for competent, effective practices (alternatively, shorten a leg and the stool gets wobbly; remove a leg and it cannot stand). It is important to understand that this tripartite definition of EBPP was not created as a *de novo* “once and for all” solution. Rather, the 2006 conceptualization emerged as an artifact of controversy and compromise that occurred throughout the 1990s and 2000s. Briefly, a certain portion of researchers advocated for empirically supported treatments while a certain different portion of clinicians argued that greater importance should be placed on clinician expertise and client characteristics (Buscemi & Spring, 2015; Spring, 2007). In 2006, the APA Presidential Task Force developed the tripartite definition of EBPP as something of a compromise to appease both sides of the debate. Yet by this time, the push toward EBTs had been gaining momentum for years. In the years since then, the earlier EBT models have been subsumed by EBPP. However, the circumscribed emphasis on *empirically supported treatments* has held fast, at least in terms of how many researchers conceptualize the EBT “leg” and the role of research evidence in EBPP.

Seemingly from the earliest discussion of the three-part definition of EBPP, there has never been equal attention to all three components of the definitional model. Rather, a great deal of theoretical and empirical research had already been published on EBTs (Chambless & Ollendick, 2001; Levant, 2004), whereas the other two legs earned significantly less empirical attention in the scholarly literature. Consequently, the emergent evidence base has developed a significant discrepancy among these three legs of EBPP, which in our view contributes to the current confusion regarding EBPP. In other words, the stool has become unbalanced. Although there is a great deal of research on treatment effectiveness/efficacy, less is known about clinician and client factors.

The divergence appears to continue to this day (Buscemi & Spring, 2015), for example, with some commentators

(e.g., Lilienfeld, Ritschel, Lynn, Cautin, & Lutzman, 2015) asserting that empirically supported treatments are the “more important” leg of the stool. The common misconception, then, would be that EBPP appears as a three-legged stool resting on (a) one prominent leg of *evidence-based* treatments and two smaller, newer, and *not-necessarily-evidence-based* legs of (b) clinician factors and (c) client factors. This view (the “wobbly stool,” perhaps) makes some sense, given the historical evolution just outlined. In our view, however, this perspective is misguided, counterproductive, and in need of revision.

A Revised Framework for EBPP in CCAP

Rather than belabor the divisive debates of science versus practice within professional psychology, we advocate that the CCAP specialty avoid the disparagement of the “other camp” when integration is truly needed. In an opening editorial for *JCCAP*, Prinstein (2012) noted that the flexible approach had become increasingly more accepted with CCAP, such that key question was “no longer *whether* to use EBPP approaches, but *how* to ensure that all can use and benefit from EBPP” (p. 2). Toward those practical goals, and in the spirit of integration, we argue that EBPP can be conceptualized and operationalized much more effectively. Specifically, we offer four points of clarification to the existing conceptualization (APA Presidential Task Force, 2006) to advance an evidence base for EBPP in CCAP, outlined next.

1. **Knowledge is distinct from epistemic¹ process.** First, and most fundamentally, when talking about EBP, *we should not conflate what we know with how we know it*. In our assessment, much of the controversy surrounding EBPP comes down to the latter issue, that is, disagreements about the relative merits of one epistemic approach (e.g., knowledge acquired via clinical training and experience) as compared to another (e.g., knowledge acquired via randomized controlled trials [RCTs] and peer-reviewed studies). These differences, in turn, appear to be associated with the kinds of work one does as a psychologist.

Consider, for example, two hypothetical, midcareer clinical child psychologists, “Dr. Therapist” and “Dr. Researcher.”² Dr. Therapist has been engaged in regular clinical practice, providing assessment and treatment services on a daily basis for about 20 years. He has therefore acquired a great deal of clinical experience working with a large number of families with diverse backgrounds and referral issues. Thus, clinical expertise (e.g., cultural competence) and idiographic assessment (guided by relevant research) would qualify as two epistemic processes that

¹“of or relating to knowledge or knowing” (“Epistemic,” 2015).

²We choose to discuss a hypothetical example of individuals rather than characterize broad factions of the profession because these are intended to illustrate principles without stereotyping.

are clearly relevant to his work. Of importance, in the present example Dr. Therapist's decisions regarding idiographic assessment are guided by current research on EBA. Further, Dr. Therapist's experience working with clients from diverse backgrounds allows him to examine the literature critically and determine the best course of assessment and treatment for his individual clients. Dr. Researcher, on the other hand, has devoted most of her time to research and teaching for the past 20 years. In other words, she participated in a scientific process through which evidence is generated, interpreted, and disseminated according to the rigorous standards and mechanisms available. Thus, the methods of psychological science are likely to be particularly relevant to her work.

However, from these simple premises, one cannot conclude that Dr. Therapist does not value the scientific method or that Dr. Researcher does not appreciate the individual differences among clinicians and clients (further, in our view, such straw-man arguments are ill-informed and counterproductive). On the contrary, these two psychologists both occupy the same profession and specialty, both have had similar training experiences, and both share a common general goal: to advance evidence-based psychological services to better serve youth and families. Moreover, Dr. Researcher likely draws upon her clinical training experience to inform her research, and Dr. Therapist likely utilizes his scientific training in his clinical work (e.g., generating and testing hypotheses regarding a client's symptoms). At the very least, there is little reason to suspect that either of them would deliberately jettison such a sizable portion of their training in the scientist-practitioner or clinical scientist model.

In part, this example illustrates what we already know: that clinical child and adolescent psychologists serve very different functions in very different settings. But we raise the example to demonstrate that these permutations are accompanied by variations in the epistemic processes that are most relevant, salient, and utilized. In valuing EBPP, clinical child psychologists, regardless of work setting, value the use of effective methods with attention to clinician and client factors. Each of these three components can be studied through a variety of methods, and many different epistemic tools can be applied to each component. This brings us to our second, third, and fourth points.

2. Research on clinician and client factors is needed. Second, *the domain of research evidence in EBPP should include client and clinician factors.* As just described, one artifact of the development of EBPP is that the EBT "leg" came to be known as the only area in which research could be conducted. Unfortunately, client factors and clinician factors were typically viewed as the unscientific components simply by virtue of their historical juxtaposition to EBTs. We assert that all three of these topics are amenable to rigorous scientific inquiry. In fact, to help ameliorate the discrepancy just noted, there seems to be a

need for research specifically directed at client and clinician variables. In subsequent sections, we provide several specific recommendations for future research needed in these areas. A better understanding of client and clinician factors will ultimately lead to more effective assessment and treatment methods applied through evidence-based clinical decision making.

3. Research on assessment is needed. Third, *the domain of research evidence in EBPP should include assessment.* Although the focus on empirically supported treatments has led the EBPP movement, there is a need for research evidence supporting all of the clinical practice functions of clinical child psychologists with assessment and treatment being chief among them. Compared to EBT research, the literature on EBA in CCAP is relatively new but rapidly expanding. As noted by Mash and Hunsley (2005) and reiterated by Jensen-Doss (2015), this lag is somewhat ironic considering that the effective treatment of psychological problems is contingent upon an accurate assessment and understanding of the problem. Moreover, in the changing healthcare landscape, psychological assessment is perhaps the single essential function that clinical child and adolescent psychologists are uniquely well qualified to serve (Finch et al., 2012; Hunsley, 2015).

Although the integrative approach termed "EBA" is relatively new, psychology has long led the way in developing valid and reliable methods for assessing psychological and behavioral functioning in youth (Youngstrom, 2013). In many ways, the notion of EBA fits our existing frameworks for evaluating empirical support for psychological methods: *What assessment procedures, for whom, and by whom, work for the assessment of what conditions, under what circumstances?* (Kazdin, 2005; Mash & Hunsley, 2005). But there are even more questions to be answered. Recognizing the pitfalls and potential of assessment, Hunsley and Mash (2007, p. 30) thoroughly define EBA as

an approach to clinical evaluation that uses research and theory to guide the selection of constructs to be assessed for a specific assessment purpose, the methods and measures to be used in the assessment, and the manner in which the assessment processes unfolds ... [recognizing] that, even with data from psychometrically strong measures, the assessment process is inherently a decision-making task in which the clinician must iteratively formulate and test hypotheses by integrating data that are often incomplete or inconsistent ... [and involving] an evaluation of the accuracy and usefulness of this complex decision-making task in light of potential errors ... costs, ... and, ultimately, the impact the assessment had on clinical outcomes.

Clearly, then, there are numerous directions for future research in EBA with respect to effective methods, client factors, and clinician factors. Clinically, the functions of assessment and treatment are best characterized as an

ongoing, reciprocal process whereby assessment informs intervention, and intervention progress is monitored via assessment. To this end, recent research has examined methods of tracking treatment progress by evaluating measures that demonstrate sensitivity to change, such as the Brief Problem Checklist (Chorpita et al., 2010) or the Youth Top Problems measure (Weisz et al., 2011). Ongoing assessment and treatment monitoring allows for continued collaboration between clinicians and clients and may also have important implications for therapeutic alliance (Weisz et al., 2011). Researchers, too, should consider EBA concomitantly with EBT.

4. The EBPP framework can guide research in CCAP.

Finally, *the EBPP framework should help guide research.* Given the historical narrative just outlined, there seems to be a common opinion that EBPP is a “wishy-washy” compromise that simultaneously means everything and nothing. Indeed, it is true that the evolution of EBPP has been somewhat divisive, politically driven, and remedied through ad hoc compromises. This merits some level of skepticism but not cynicism or dismissal. To reject the three-part conceptualization of EBPP simply because of how it originated would be to succumb to a *genetic fallacy*.³ When considered in a critical, open-minded manner, the incorporation of effective methods, clinician variables, and client variables (all three via empirical research) makes a great deal of sense as a framework for advancing the science of CCAP in order to inform its practice. We hope that this discussion article demonstrates the utility of this framework.

Revisiting the three-legged stool. With these four assertions in mind, a few small revisions are warranted to clarify the terminology of EBPP. For reasons just introduced and further explained next, we henceforth refer to the three legs of the EBPP stool as (a) effective methods, (b) clinician factors, and (c) client factors. Further, we discuss the state of the research within each of these three legs and in their relation to assessment and treatment. Figure 1 presents this model in the form of the revised three-legged stool. The “practice” of EBPP consists of EBA and EBT (the applications of our knowledge/evidence), which rests on the three legs of effective methods, client factors, and clinician factors (the content of our knowledge/ evidence), each of which, in turn, stands upon a “mat” representing a variety of epistemic processes (the methods through which we acquire our knowledge/ evidence).

By differentiating the knowledge/evidence (the legs) from the epistemic processes through which it is acquired (the mat), it becomes clear that our most rigorous scientific methodologies can be, and in fact should be, utilized to further professionals’ understanding of clinician and client

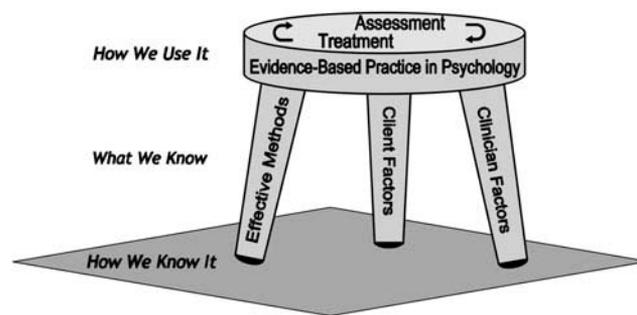


FIGURE 1 A reconceptualized three-legged stool of evidence-based practice in psychology for research in clinical child and adolescent psychology.

factors in EBPP. Indeed, psychological science has developed an impressive array of methodological and analytical tools that could be applied in creative ways to advance our knowledge of subjects and processes that have previously been ignored as “non-evidence-based” areas. The other side, of course, is that scientific methodologies are not the only epistemic tool at our disposal. In clinical practice, as illustrated in the prior hypothetical example, rigorous scientific evidence regarding effective methods (e.g., from RCTs and meta-analytic reviews) are not going to be the most salient, de facto source of evidence for practicing therapists, even among those with best scientific training and intentions to practice in an evidence-based manner. Put simply, clinicians must draw conclusions and make decisions based *on something*, and the most likely source of guidance is their own expertise and their assessment of the client. As many have pointed out, this can be problematic given (a) the tendency not to use effective methods, leading to less reliable and valid decisions (e.g., Jenkins, Youngstrom, Washburn, & Youngstrom, 2011), and (b) the effects of well-established cognitive biases that promote perceptions of treatment effectiveness (Lilienfeld, Ritschel, Lynn, Cautin, & Latzman, 2014). To the extent that CCAP lacks a strong evidence base on clinician and client factors in CCAP, clinical decision making in these areas is, by necessity, non-evidence-based. Accordingly, it is *imperative* for researchers to develop a thorough, useful body of knowledge to facilitate EBPP with respect to these client and clinician factors, as well as effective methods. In our effort to advance such a body of research, we next offer several recommendations.

ADVANCING THE EVIDENCE BASE FOR EBP IN CCAP: FUTURE DIRECTIONS FOR RESEARCH

In this section, we briefly discuss the current state of, and future directions for, research supporting EBPP for assessment and treatment with children and adolescents, including

³“The alleged mistake of arguing that something is to be rejected because of its suspicious origins” (“Genetic fallacy,” 2015).

TABLE 1
Recommended Directions for Further Research to Advance all Three
Legs of the Evidence Base for Evidence-Based Practice in Clinical
Child and Adolescent Psychology

<i>Effective Methods</i>	<i>Clinician Factors</i>	<i>Client Factors</i>
Assessment processes (not tools)	Clinical judgment, decision making, and conceptualization	Comorbidity
Mechanisms and trajectories of change		Culture/ethnicity
Transdiagnostic applications	Education and training	Family
Well-established treatments	Therapeutic alliance	Treatment moderators

effective methods, clinician factors, and client factors.⁴ Here we consider the question of effective methods to be those that address the broadest nomothetic questions, *what works* for a particular problem and *how* (mediators). Characteristics and circumstances related to the client and clinician, which may represent idiographic “exceptions to the rule,” are generally considered as moderators within the other two legs of the EBPP stool. In keeping with our dual focus on treatment and assessment, we discuss EBA and EBT with respect to each of the three legs of the stool. Examples of recommendations for future research within each of these three areas are presented in Table 1.

Effective Methods

The central question of CCAP assessment and treatment research is ostensibly simple: Is a particular method effective in doing what it is intended to do? Volumes have been written to summarize the literature on this kind of research in assessment (e.g., Frick, Barry, & Kamphaus, 2010; McLeod, Jensen-Doss, & Ollendick, 2013) and treatment (e.g., Fonagy et al., 2015; Steele et al., 2008; Weisz & Kazdin, 2010) in CCAP. Rather than put forth another summary of this literature, we focus on several more novel questions that provide specific opportunities for future research.

Reviews of the assessment literature (e.g., D’Angelo & Augenstein, 2012; Silverman & Ollendick, 2005) routinely yield dozens of instruments used in the assessment of a particular kind of psychological problem (broadband and narrowband; rating scales and interviews; different

informants), many with strong empirical support for their reliability, validity, and utility. However, as strong as a measure can be, its clinical value can go only so far as the function that it serves for assessment or treatment. Unfortunately, there have been few systematic studies designed to improve the EBA *process*. We have excellent tools; it is time we determine how best to use them (Mash & Hunsley, 2005).

One long-standing strength of CCAP assessment is that clinicians routinely gather data from multiple informants. A long-standing challenge has been how to incorporate and interpret these data, particularly in the presence of discrepancies. Does interrater disagreement reflect differences in reporters’ perspectives, motivations, or contexts? If so, what are the implications for reliability and validity of the ratings? Researchers have provided guidance for interpretation, including a number of simple methods (e.g., taking the highest rating, or averaging across all raters) and complex algorithms (e.g., assigning more weight to parent and teacher report for externalizing problems, and more weight to self-report for internalizing problems; De Los Reyes & Kazdin, 2005; Smith, 2007). Unfortunately, these sophisticated practices used in research studies with samples of youth have not translated to clinical applications appropriate for a single child. A related issue is that of integrating multiple methods, including rating scale, interview, observational, clinician-administered procedures, as well as novel methodologies that have been used in research but not clinical practice, such as physiological assessment methods (De Los Reyes & Aldao, 2015; De Los Reyes et al., 2015; Youngstrom & De Los Reyes, 2015).

The other domain of assessment process research relates to *why* and *how* questions. How is administering one more rating scale likely to help improve client outcomes? Will the results provide information that is useful to the clinician or the client? Hunsley and Mash (2007) pointed out that very few studies have actually examined the treatment impact of assessment measures but limited evidence suggested that treatment outcomes are not affected by whether the clinician has assessment data. Several authors (e.g., Hayes, Nelson, & Jarrett, 1987; Haynes, 1993) have outlined directions for research to improve the treatment utility of given assessment procedures, arguing that syndromal and personality-focused typologies do not translate toward treatment steps in a manner that is nearly as useful as functional behavior assessment and analyses. Years later, CCAP researchers have answered these calls with assessment processes designed to maximize clinical utility. For example, Youngstrom (2013) outlined an efficient and thorough 12-step assessment process, which draws upon existing evidence to enhance accuracy of diagnosis and provide direction regarding treatment planning. Jenkins et al. (2011) showed that brief training in the use of relative risk ratios and nomograms can yield dramatic

⁴ Although we acknowledge the importance of related topics, including ecological variables, training, and dissemination/implementation in EBPP, such factors are beyond the scope of this review. We echo Buscemi and Spring (2015) in suggesting that these are important peripheral variables for EBPP. We encourage interested readers to review *JCCAP*’s recent special issue: *Doing More With What We Know* (editors: Chorpita & Daleiden, 2014).

improvements in diagnostic accuracy for pediatric bipolar among community clinicians using a vignette-based design. Van Meter et al. (2014) found similarly positive results for this method improving the assessment of anxiety disorder among large academic and community samples of clinically referred youth. Similarly, Ebesutani, Bernstein, Chorpita, and Weisz (2012) developed a novel algorithm to help strike the optimal balance between participant burden and clinically useful data in real-world settings. Although still within the “proof of concept stage,” such research is an excellent example of how clinical science can facilitate direct progress in clinical practice.

To advance the evidence base for effective methods, there is a strong, specific need for independent replication of treatment outcome studies. For example, consider the following: Of the specific disorders and problems listed on the Effective Child Therapy web site of the Association for Behavioral and Cognitive Therapies, & Society of Clinical Child and Adolescent Psychology (2015), about half (7 of 13) lack *any* “well-established” treatments. Further, there are more treatments that are “experimental” or “possibly efficacious ($n = 36$)” than “probably efficacious” ($n = 24$) or “well-established” ($n = 8$). From a clinical and public health perspective, the development of a single well-established treatment is likely a higher priority than developing multiple similar treatments that are experimental or possibly efficacious (Weisz, Hawley, Pilkonis, Woody, & Follette, 2000). We therefore advise against the development of new treatments that are very similar to existing protocols, and instead recommend replication studies for treatments that already show promise. This is likely to be a less glamorous endeavor, but one that would truly contribute to the advancement of the field and the well-being of children and families.

We recognize that researchers face numerous limitations that may inhibit replication studies (e.g., funding issues, emphasis placed on innovation rather than replication); however, we contend that advancement of the field and refinement of our methods necessitates replication and extension. For researchers to be able to prioritize replication studies will likely require an important cultural shift within the field as a whole but one that aligns with broader trends within the medical field (i.e., tracking response to treatment and accountability for providers). Researchers need not equate replication with banality, but consider methods by which studies may replicate and extend previous work (e.g., working with new populations or in new settings). Indeed, review of the Chambless and Hollon (1998) criteria, as outlined on the EffectiveChildTherapies.org site, stipulate that for treatments to progress from “probably efficacious” to “well-established” requires evaluation by independent study teams. Concurrently, focusing research on existing interventions, rather than generating new, analogous

protocols, will allow for continued work focusing on the core elements of interventions (i.e., which parts effect change?). Once an intervention demonstrates efficacy, the logical next step is identifying the mechanisms of change within the longer protocol. Relevant to this shift in focus, research should focus on effective methods for implementing these promising protocols outside of a laboratory setting (e.g., community mental health centers, primary care settings).

Intervention research has advanced beyond addressing questions of whether a treatment works; we can now address the more difficult questions of *why* and *how* a treatment works. Researchers are increasingly “looking under the hood” of EBTs to identify the mediators that account for treatment outcomes (Hinshaw, 2007). For example, behavioral parent training—a well-established treatment for children’s externalizing problems (S. W. Evans, Owens, & Bunford, 2014; Eyberg, Nelson, & Boggs, 2008)—appears to be effective because it brings about changes in parenting behavior, which in turn lead to improvements in children’s behavior (Chronis-Tuscano et al., 2011; Gardner, Burton, & Klimes, 2006; Hinshaw, 2007). Similarly, although there is ample evidence that CBT can help reduce child anxiety (Silverman et al., 2008), Hogendoorn et al. (2014) found that positive thoughts and coping strategies mediated this improvement.

A related line of research is to examine the pattern of change over the course of treatment, in terms of an overall trajectory or from one session to the next (e.g., Kendall et al., 2009). Such evidence can have very useful applications for monitoring progress, adherence, and therapeutic alliance throughout treatment. For example, clinicians now have the ability to assess the progress of a child or adolescent client on a session-to-session basis, compared to clinical and normative samples (Cannon, Warren, Nelson, & Burlingame, 2010). Indeed, it may be possible for clinicians to make accurate judgments about a client’s long-term retention and response to treatment based on their behavior in the first few sessions. These research findings and applications hold great promise for making treatment more adaptive and individualized.

Finally, much of the progress toward identifying well-established treatments has been made by developing intervention protocols specifically tailored to particular problems. On one hand, this has facilitated a great deal of improvement in the effectiveness of manualized treatments. However, detractors can argue that when clinical problems are defined in artificially narrow terms (e.g., ignoring comorbidity and family factors), any evidence of intervention efficacy is questionable because it is not clear whether the whole problem has been addressed. Theories of psychopathology offer much more rich and comprehensive formulations of how disordered behavior is developed and maintained. Accordingly, clinical science is expanding beyond one-to-one formulas to include more general theory-driven approaches that might be used to address a

variety of different problems. For example, behavioral therapies (including CBT) are perhaps the closest example of a “one size fits all” approach for child mental health care (Association for Behavioral and Cognitive Therapies, & Society of Clinical Child and Adolescent Psychology, 2015). Many CBT protocols in CCAP were developed to treat separate, discretely defined problems, despite sharing common theoretical roots. Recently, Chorpita and Weisz (2009) distilled the evidence-based components of these interventions into a more user-friendly modular treatment format, with encouraging results in real-world settings (Weisz et al., 2012). In addition, newer “third-wave” behavioral therapies like Acceptance and Commitment Therapy and Dialectical and Behavior Therapy also fall within the behavioral framework (Bass, Van Nevel, & Swart, 2014) and show promise for child and adolescent treatment applications (Coyne, McHugh, & Martinez, 2011; MacPherson, Cheavens, & Fristad, 2013). Clearly, the actual content and techniques will vary depending on the nature of the referral issue for which it is delivered. Thus, even “well-established” treatments must demonstrate their efficacy when adapted for a new purpose.

Client Factors

As we have iterated previously, client factors that impact treatment and assessment should be not considered mutually exclusive from research. Indeed, this leg of the stool invites significant opportunities for empirical support. Numerous client factors, especially within the realm of CCAP, have been identified as pertinent considerations that play a role in assessment and treatment. Some important work has evaluated client-level variables as mediators or moderators of treatment outcomes within the context of larger efficacy trials. Unfortunately, inherent within the RCT model is the possibility of failing to appreciate the importance of client factors during assessment and treatment. For example, Spirito et al. (2009) found that moderators of treatment outcome in one RCT, previously ascribed to “site differences,” could actually be accounted for by differences in baseline client characteristics. Here, we provide preliminary examples of such factors, with the understanding this is not an exhaustive list.

Client factors, especially within the realm of CCAP, contribute significantly to decisions and procedures during initial and ongoing assessment. The unique nature of CCAP with de facto involvement of other participants (e.g., parents or guardians) necessitates additional considerations when making decisions regarding assessment, such as, Who should report on child’s behavior? How should one address discrepancies between reporters? Indeed, there is evidence to suggest that discrepancies in reports on aspects of the parent–child communication may be accounted for by respondents’ depression (De Los Reyes, Goodman,

Kliewer, & Reid-Quiñones, 2008). Such decisions are further complicated by complex presentations, including comorbid conditions. For example, whereas the extant research may recommend reliance on adolescent-report of internalizing symptoms (Jensen et al., 1999; Klein, Dougherty, & Olino, 2005; Silverman & Ollendick, 2005), an adolescent presenting with comorbid autism spectrum disorder and anxiety symptoms complicates the assessment process. Taken together, even when a clinician uses an appropriate, and well-validated, assessment tool to assess symptomatology, there is evidence to suggest that extraneous client factors can, and often do, confound reporting. More research identifying factors that impact reporting is warranted. Complications associated with comorbid symptoms further extend into treatment, as certain EBTs for anxiety likely require appropriate modifications for successful use with youth with autism spectrum disorder (Wood et al., 2009; Wood et al., 2015). Thorough understanding of the research related to various presenting concerns and diagnostic considerations may inform these decisions.

A primary client factor that has received much empirical attention is the role of cultural variables in assessment and treatment. Cultural variables that have been associated with assessment and treatment include ethnicity, sexual identity, and sexual orientation, to name a few. Despite the emphasis placed on providing culturally competent care within the professional field, there is yet to be a minority culture-specific treatment that has been identified as “well-established” in accordance with the Chambless, Crits-Christoph, Wampold, Norcross, and Lambert (2006) criteria; however, some treatments have shown promising efficacy with minority populations (Huey & Polo, 2008; Huey, Tilley, Jones, & Smith, 2014). A detriment to the progress made in this area can largely be accounted for by the process that has plagued CCAP as a whole. Bluntly, the assumption that certain treatments “just work” and thus professionals attempt to rework certain aspects of the protocol and tailor it for a specific population (i.e., a top-down approach), rather than initiating a treatment protocol by taking into account relevant cultural values and processes (i.e., a bottom-up approach). Indeed, Huey and colleagues’ (2014) recent work revisiting the efficacy of evidence-based interventions for minority populations suggest that the interventions themselves demonstrate efficacy; however, evidence of clinicians’ adolescents cultural competence to effectively implement these interventions remains unclear.

This point is illustrated in the frequent assertion stipulated by studies that fail to find dissimilarities in outcomes when examining group differences. Specifically, claiming nonsignificant differences between groups of individuals is synonymous with equivalent efficacy. These limitations in the current literature highlight an important focus for future research (discussed in more detail later). Within the context of large RCTs, recent studies have explored client-characteristics as predictors

of treatment outcome. One example from the Treatment for Adolescents with Depression Study examined how adolescents' readiness to change affected treatment outcomes across study interventions (Lewis et al., 2009).

Another client-related factor that is especially relevant to CCAP pertains the role of parents or family within the context of treatment. Although traditional psychological services inherently direct treatment toward the identified "client," recent work within the field of CCAP has evaluated the role of parent participation in treatment. Specific areas of research include examination of outcomes relative to the extent to which parents participate in treatment (Jelalian et al., 2015), as well as evaluating the efficacy of a treatment intervention that targets specific family-level variables (i.e., cohesion and conflict; Peris & Piacentini, 2013). Each of these examples exemplifies methods by which client characteristics (expanded here to include parents and family) can function as the experimentally manipulated variable(s).

Research examining client factors must continue to expand and develop. As one example, researchers (and clinicians) should consider implementing novel approaches to evaluating client factors that relate to treatment progress and outcomes. Methodologies such as N-of-1 RCTs (see Cushing, Walters, & Hoffman, 2014, for recommendations) allow thorough examination of how client factors respond to, and impact, treatment. Further, such approaches can easily be translated to clinical settings, providing clinicians numerous opportunities to develop idiographic protocols when working with clients. In addition, adaptive interventions are useful in studying client characteristics such that they examine how individuals respond at each stage of the intervention as well as answer questions regarding the mechanisms and sequencing of treatment. Sequential multiple assignment randomized trials provide evidence for the effectiveness of specific aspects of treatment (e.g., decision points, intervention options), which can then be used to build adaptive interventions (cf. Almirall, Nahum-Shani, Sherwood, & Murphy, 2014).

Clinician Factors

Despite identification as a fundamental aspect of the "mental health ecosystem" within CCAP (Weisz, Ugueto, Cheron, & Herren, 2013), clinician factors have received minimal attention within research arenas. One potential obstacle to empirical investigation within this leg of the stool is likely driven by the tendency to substitute "clinical judgment" for "clinician factors," which then is loosely defined. We do not intend to suggest that clinical judgment, or the process of decision making, is not an important, or necessary, component of EBPP; rather we suggest that this is but one aspect of clinician factors that may relate to treatment, and further,

that clinical judgment needs to be empirically explored. Few studies have attempted to examine clinical judgment as it relates to decision making; however, they face limitations in generalizability due to nebulous definitions, or emphasis on qualitative methodology, which similarly inhibits generating an operational definition of clinical judgment (e.g., Bickman, Karver, Schut, & James, 1997; Bierman, Nix, Maples, & Murphy, 2006; Kam & Midgley, 2006).

In spite of these identified obstacles, recent work has attempted to incorporate elements of clinician factors within empirical study; however, much of this work faces similar limitations as early work within client factor research. Namely, clinician-related variables function as moderators or mediators of treatment outcomes within the context of a broader study. Despite these challenges, clinician factors are amenable to empirical study. For example, vignette-based designs can provide one approach for investigating clinical judgment and decision making (S. C. Evans et al., 2015). Use of this methodology allows researchers to examine the process of clinical decision making through sequential exposure to hypothetical scenarios that prompts clinicians to provide explanations of their clinical approach and decision making. Vignette methodology has been used to assess decision making regarding the diagnostic process (Barnhill, 2014), as well as more general clinical judgment (Wainwright, Gallagher, Tompsett, & Atkins, 2010). Taken together, vignette studies provide evidence for an effective, empirical method to investigate the once hazy concept of clinical judgment.

There has been some recent work within this area examining factors such as therapeutic alliance.⁵ Of importance, the nature of CCAP service provision, typically requiring involvement of multiple parties (e.g., child, parent, teacher), inherently complicates the already complex dynamics of therapeutic alliance, underscoring the importance of this type of research. Much work has advanced our understanding of the role that therapeutic alliance plays in treatment outcomes (e.g., Ormhaug, Jensen, Wentzel-Larsen, & Shirk, 2014; Schmidt, Chomycz, Houlding, Kruse, & Franks, 2014); however, the complexity of measurement, and specific predictors of alliance across participants remains somewhat convoluted (Accurso & Garland, 2015). Indeed, there is evidence to suggest that therapeutic alliance may be predicted by treatment factors including symptom severity or treatment response suggesting a possible bidirectional effect or potential confounding effect such that response to treatment may influence or be synonymous with therapeutic

⁵ Although this could also be considered a client factor, it is discussed here as a clinician factor due to the responsibility of the clinician to develop rapport (Marker et al., 2013).

alliance (e.g., Hurley, Van Ryzin, Lambert, & Stevens, 2015; Marker, Comer, Abramova, & Kendall, 2013). Additional longitudinal work, with ongoing assessment of alliance and including multiple informants, is needed to better tease apart the role of therapeutic alliance in clinical outcomes.

Another important area that has received some attention in the empirical literature is the role of clinician education and training (e.g., Gayes & Steele, 2014). Represented among the diverse population of professionals who may provide psychological services to children and families, there is a wide range of possible degrees (e.g., MA/MS, MSW, PsyD, PhD). Moreover, within each level of training, there is an even wider variety of different types of training. Thus, clinician education and training is an important clinician factor to consider. Important to note, the extant literature indicates that clinician education does not significantly contribute to differences in client outcomes (e.g., Gayes & Steele, 2014; Lundahl, Kunz, Brownell, Tollefson, & Burke, 2010), suggesting that training experiences, rather than specific degree, may represent a more important area of study within clinician factors. Training may refer to specific educational experiences (e.g., setting of clinical practice) as well as theoretical orientation (e.g., cognitive-behavioral). More work in this area is warranted.

Generally, clinician-focused research should be a priority. We echo the sentiments of others in the field and emphasize the importance of continued research evaluating therapist competence (Southam-Gerow & McLeod, 2013). Defined as a broad construct that incorporates aspects of training and clinical judgment (e.g., implementing specific interventions, rapport-building skills), therapist *competence* appears to have received much more attention in the clinical adult psychology literature. Of importance, therapist competence may be a method of integrating the research and clinical sides through the joint focus on both practical skill and relationship factors. A few measures of this construct, appropriate for use within CCAP, already exist (e.g., Chu & Kendall, 2009; Hogue et al., 2008); now the field just needs to use them!

CONCLUSION

To practice based on evidence is to practice in accordance with a body of knowledge accumulated from experimentation and observation. Such knowledge can take many forms and functions, but it is not bounded to a specific epistemic process. In clinical child and adolescent psychology, clinicians often practice in a wide array of settings where scientific evidence is not prioritized as the primary guide to practice. In our view, researchers can do more to develop a body of knowledge designed to guide clinical practice. In this article, we offered a revised conceptualization of the EBPP framework,

separating the *content* of knowledge (i.e., effective methods, client factors, and clinician factors) from the avenues through which it is *acquired* (e.g., different kinds of research studies) and the processes through which it is *applied* (e.g., different forms of assessment and treatment). Consistent with this framework, we offered a number of specific directions for future research to advance the evidence base for EBT and assessment in clinical child and adolescent psychology. In particular, this framework reveals several gaps in the literature related to client and clinician factors in EBPP, which we hope can be addressed through creative, rigorous application of existing research methodologies.

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