Improving Community-Based Mental Health Care for Children: Translating Knowledge into Action

Ann F. Garland,
Department of School, Family, and Mental Health Professions, School of Leadership and Education Sciences, University of San Diego, 5998 Alcalá Park, San Diego, CA 92110, USA, agarland@sandiego.edu

Child and Adolescent Services Research Center at Rady Children's Hospital, San Diego, CA, USA

Rachel Haine-Schlagel,
Child and Adolescent Services Research Center at Rady Children's Hospital, San Diego, CA, USA

Department of Psychology, San Diego State University, San Diego, CA, USA

Lauren Brookman-Frazee,
Child and Adolescent Services Research Center at Rady Children's Hospital, San Diego, CA, USA

Department of Psychiatry, University of California, San Diego, San Diego, CA, USA

Mary Baker-Ericzen,
Child and Adolescent Services Research Center at Rady Children's Hospital, San Diego, CA, USA

Emily Trask, and
Child and Adolescent Services Research Center at Rady Children's Hospital, San Diego, CA, USA

Department of Psychiatry, University of California, San Diego, San Diego, CA, USA

Kya Fawley-King
Child and Adolescent Services Research Center at Rady Children's Hospital, San Diego, CA, USA

Department of Psychiatry, University of California, San Diego, San Diego, CA, USA

Abstract

There is urgent need for improvement in community-based mental health care for children and families. Multiple studies have documented serious limitations in the effectiveness of "usual care." Fortunately, many empirically-supported strategies to improve care have been developed, and thus there is now a great deal of knowledge available to address this significant public health problem. The goal of this selective review is to highlight and synthesize that empirically-supported knowledge to stimulate and facilitate the needed translation of knowledge into action. The review provides a sound foundation for constructing improved services by consolidating descriptive data on the status quo in children's mental health care, as well as evidence for an array of promising strategies to improve (a) Service access and engagement; (b) Delivery of evidence-based practices;

and (c) Outcome accountability. A multi-level framework is used to highlight recommended care improvement targets.

Keywords

Child and adolescent services; Usual care; Improvement strategies

Introduction

Alarms regarding the ineffectiveness and fragmentation of community-based mental health care for children and families have been raised for decades and recent data reinforce these concerns (Bickman 2008; Kazak et al. 2010; Knitzer 1982; Warren et al. 2010; Warren et al. 2010, 2006). Millions of children in the United States are treated for mental disorders, but studies indicate that the majority of children receiving community-based "usual care (UC)" do not show clinical improvement (Manteuffel et al. 2008; Warren et al. 2010). Concerns about the limited effectiveness of care have prompted a variety of policy and research initiatives intended to improve care (Bruns et al. 2008; Chambers et al. 2005; Kazak et al. 2010; IOM 2005; Surgeon General 2000). As a result, empirically-supported knowledge about how to improve care has advanced significantly. However, as in all areas of health care and social services, translating this knowledge into broad-scale action has been challenging. While we continue to pursue innovations in preventive and treatment interventions and care delivery systems, we need to capitalize on the wealth of existing empirically-supported knowledge to improve care for the millions of children entering service systems right now.

The purpose of this selective review is to present evidence of the areas needing improvement, summarize what is known about the current status quo, and highlight existing empirically-supported strategies to address serious problems in our current mental health system. Our aim is to provide a pragmatic, consolidated source of empirically-supported knowledge to stimulate and facilitate application of that knowledge to critically needed action.

Review Description and Goals

The selective review is based on the following facts:

1. Current usual mental health care for children is generally ineffective. We begin our review below with a brief summary of research on UC effectiveness to highlight the urgent need for improvement.

2. Mental health care is delivered within a multi-level context, as illustrated in Fig. 1, below. The solid arrow represents interaction across all layers impacting services for clients. Care improvement interventions may be implemented at one or more contextual levels, and interventions at different levels may interact to impact service effectiveness.

3. The potential effectiveness of care improvement interventions will be maximized if they are based on empirically-supported knowledge about the contexts within which they will be implemented and empirically-supported knowledge about intervention effectiveness. For optimal uptake and sustainability, improvement interventions need to "fit" well within existing service contexts (Aarons et al. 2011; Hoagwood et al. 2001; Mendel et al. 2008). Thus, our review highlights both (a) descriptive data on characteristics of UC across levels of intervention (e.g., organizational structures, individual provider and client characteristics, etc.), and

(b) evidence of promising interventions delivered in UC settings across levels of interventions.

Our selective review is limited by a few parameters. Specifically, we focus primarily on services provided in specialty out-patient mental health settings in the United States (as opposed to residential or in-patient care and/or care delivered in other service sectors such as Education, Child Welfare, or Juvenile Justice). Of the 2.9 million youths ages 12–17 who received specialty mental health services in 2009, 2.6 million received out-patient care (SAMHSA 2012). This review also addresses psychosocial, as opposed to psychopharmacological, interventions. Finally, the emphasis is on research published since 2000 to highlight knowledge about current services, although a few highly relevant studies published earlier are included.

This review contributes to the burgeoning interdisciplinary field of implementation science, which promotes the scientific study of implementing research-supported practices in routine healthcare contexts. However, unlike efforts to compile a comprehensive array of implementation strategies (e.g., Powell et al. 2012), or postulate generalizable theoretical models for implementation of specific EB practices (e.g., Aarons et al. 2011), the purpose of this paper is to provide a synthesized review of descriptive and intervention effectiveness research on usual mental health care for children that can inform essential improvements in such care. For a more comprehensive review of implementation models and/or strategies, readers are encouraged to consult the following as exemplars: Aarons et al. 2011, Damschroder et al. 2009, Feldstein and Glasgow 2008, Grol and Grimshaw 1999, Powell et al. 2012, Torrey et al. 2011.

As noted above, we begin our review with a brief summary of research on the effectiveness of usual mental health care for children to highlight the urgent need for improvement and to identify factors associated with service effectiveness. We then present a summary of basic descriptive data on UC contexts to provide foundational knowledge on which to base future care improvement efforts. The remainder of the review is organized around three targets for UC improvement, namely, (a) Service access and engagement, (b) Delivery of evidence-based (EB) practices, and (c) Outcome accountability. We review current literature about UC that supports promising intervention strategies at different contextual levels (as illustrated in Fig. 1) to address each of these three targets.

The Problem: Ineffectiveness of Usual Mental Health Care for Children

Data from several studies utilizing different methods and sampling from a variety of community-based service systems reinforce serious concerns about the ineffectiveness of usual mental health care for children. For example, one large meta-analytic review reported few differences between UC treatment and control groups, with reported effect sizes near zero (Weisz 2004). A randomized controlled study also found no differences between outpatient UC and a no-treatment control group (Weiss et al. 1999).

Results of studies measuring change over time among children in UC (i.e., with no control group) provide an uncontrolled perspective on clinical change for children entering care. One study of publicly-funded usual community care reported that fewer than half (44 %) of youths either improved or recovered, while 32 % demonstrated no reliable change and 24 % deteriorated (Warren et al. 2010). Somewhat similarly, Manteuffel and colleagues (2008) used the reliable change index to examine patterns of change for youth in community care and found that following treatment an average of 36 % of youths improved, 50 % exhibited no reliable change and the remainder (14 %) exhibited poorer outcomes.

Studies with specific sub-groups reinforce a general conclusion of ineffective care. For example, one study utilizing data from the National Survey of Child and Adolescent Well-being (NSCAW) applied a propensity score matching model to examine the impact of community-based outpatient mental health care for a national sample of children who had experienced long-term foster care and concluded that outpatient mental health services did not result in any improvement in children's behavioral health (Bellamy et al. 2010).

Several studies have reported aggregate decreases in children's behavioral and emotional problems after entering care in community-based service systems, reflecting overall improvement in symptoms (Hawley and Weisz 2005; Manteuffel et al. 2002; Trask and Garland 2011), but like all uncontrolled studies, the extent to which these observed changes can be attributed to treatment received is unknown. Results from a number of studies demonstrating no "dose–effect" relationship (i.e., no link between amount of treatment received—usually measured as number of sessions attended—and outcome variability) reinforce skepticism about attributing observed symptom change to treatment (Andrade et al. 2000; Garland et al. Under Review; Lindhiem and Kolko 2011; Trask and Garland 2011; Warren et al. 2009). Lambert and Bickman (2004) proposed that observed decreases in symptom severity and/ or improvements in functioning after service entry should not necessarily be attributed to service effectiveness because such changes likely reflect predictable variation, including expected "regression to the mean." Longitudinal modeling of expected variations in symptom severity and the assumption that children generally enter care when symptoms are most severe support this point. Likewise, given that improvement in symptoms has also been observed for adults on a wait list for care, it may be that the act of seeking care (and/or expecting benefit from treatment) is associated with some symptom relief (e.g., Rutherford et al. 2012). However, regardless of how data from all these studies may be interpreted, the bottom line is that there is no convincing evidence of a strong aggregate clinical impact of usual community-based care for children and families. Given the numbers of children in need of care, as well as the short and long term consequences of mental health problems and the resources devoted to this care, this represents a public health crisis.

Several studies have attempted to identify factors associated with differential effectiveness within UC, but given wide variability in clinical problems, patient and provider characteristics, and study contexts, there are few consistent findings. One important finding reported by Warren and colleagues (2010) is that outcome trajectories were significantly better for children treated in a managed care system compared to a publicly-funded community-based system of care. Potential explanations are speculative, but may reflect different practices in managed care settings (e.g., possibly greater use of shorter-term cognitive-behavioral approaches) and/or different patient characteristics (e.g., more complex and disadvantaged backgrounds among children/families in publicly-funded care). It is also worth noting that there are no consistent findings demonstrating a relationship between provider characteristics (such as, discipline, education, or experience) and differential effectiveness (for a review of this literature refer to Beutler et al. 1994, 2004; Wampold 2001).

Findings regarding child characteristics associated with effectiveness are also inconsistent. For example, the effect of symptom severity at entry on extent of change in clinical outcomes has been variable across studies; one study reported poorer outcomes associated with increased severity at service entry (Reyno and McGrath 2006), another found no significant effect (McMahon et al. 2006), and others demonstrated that increased symptom severity among youths at baseline was associated with greater improvement (Robbins et al. 2001), or lower odds of deterioration (Walrath et al. 2006). Likewise, younger child age has also been associated with better outcomes (Warren et al. 2009), but this finding varies across

studies (McMahon et al. 2006). Patient and family ethnicity has also been inconsistently associated with outcomes (Reid et al. 2001). The difficulty in identifying consistent predictors of UC clinical outcomes reinforces general concerns about the effectiveness of care, limiting confidence in discovering a consistent observed impact, even for a subgroup of children.

Descriptive Data on Usual Care (UC) Service Contexts and Practices

In an editorial for this journal over a decade ago, Bickman (2000) lamented the impoverished state of empirically-derived knowledge about community-based mental health services. One of the questions driving this current review was what have we learned about community-based children's mental health care since then? Information about UC is essential to (a) identify potential care improvement targets, and (b) understand the context in which improvement innovations will be implemented to optimize the fit between proposed innovations and existing contexts (e.g., organizational structure and funding mechanisms, provider skills and current practices, patient needs and preferences, etc.) (Aarons et al. 2011; Hoagwood et al. 2001). Emerging models that identify effective methods to implement EB interventions into UC highlight the need for contextual data on UC services to inform implementation processes and intervention "fit" (Aarons et al. 2011; Damschroder et al. 2009; Mendel et al. 2008; Powell et al. 2012; Stetler et al. 2006). Thus, there is a need to consolidate available research on existing UC service contexts and practices to optimize the potential effectiveness of improvement efforts. Interventions built on a foundation of data as opposed to presumptions about the care system are more likely to succeed.

Multiple challenges in conducting research on UC services have been noted previously, including ideological and methodological challenges (Bickman 2000; Garland et al. 2010c), limited research funding for practice-based research (Westfall et al. 2007), and minimal representation of research conducted in routine care practice settings in high impact mental health journals (Shumway and Sentell 2004). However, despite these challenges, there have been notable developments in research on usual mental health care for children in the past 12 years, including national studies characterizing organizational structures and providers (e.g., Glisson et al. 2008; Schoenwald et al. 2008), trials demonstrating effective provider EB practice training interventions and effective use of measurement feedback innovations (Bickman et al. 2011; Daleiden et al. 2006; Weisz et al. 2012), broad clinical outcome evaluations (Warren et al. 2010) and detailed assessments of UC provider in-session practices (Garland et al. 2010b). This growing literature, which is summarized below, provides critical information as a foundation on which to build care improvement innovations. While "usual" children's mental health care is certainly heterogeneous, recent research has provided valuable data characterizing clinical organizations, individual providers, and clients and their families, as summarized below. These data provide a descriptive illustration of what we are referring to as "UC.''

Organizations

Mental health care is provided by a wide array of organizational entities, as well as private individual providers. The Clinic Systems Project (CSP) conducted by the MacArthur Youth Mental Health Network (Child STEPs) provides the most representative descriptive data about the organizations delivering out-patient mental health care to children and families in the United States to date (Glisson et al. 2008; Schoenwald et al. 2008). Investigators conducted a survey of 200 directors of agencies from 88 primary sampling units throughout the U.S. Results indicate that the majority of organizational providers are private, non-profits affiliated with larger entities (such as hospitals). The agencies served an average of 902 (SD = 1,231) children per year and the average number of clinicians was 25 (SD = 26). Most of the care was clinic-based (68 %), and virtually all agencies reported offering a

variety of treatment modalities, including individual, family, and group treatments, as well as case management services. Although the majority of agencies were privately held, the largest funding source was Medicaid, which is consistent with national reports on funding sources for mental health care across all age groups (SAMHSA 2012). The average annual budget for agencies in the CSP was approximately $2.5 million, but there was a very wide range from $60,000 to $27 million. Approximately a third of the directors with site-specific budget data indicated that their agency ran at a budget deficit for each of the three years prior to the survey (Schoenwald et al. 2008), thus emphasizing resource limitation challenges and the importance of demonstrating the cost-effectiveness for any care improvement intervention.

Individual Providers

Mental health care is provided by individuals trained in a variety of disciplines including social work, counseling, psychology, marital and family therapy, and psychiatric nursing (listed from highest to lowest per capita national representation in the U.S.A.; SAMHSA 2012). Representation of providers relative to the population varies geographically. For example, in 2009 the number of child psychiatrists per 100,000 children ranged from a low of 4.3 (Mississippi) to a high of 50.1 (District of Columbia), with a national average of 14.4 (SAMHSA 2012).

The most representative current data on characteristics of individual providers for out-patient organizations serving children comes from the CSP cited above (Schoenwald et al. 2008). The majority of providers have master's degrees in disciplines listed above, are female and Caucasian; almost half (40 %) are not licensed. Data from other smaller studies sampling providers from UC are generally consistent in terms of educational background and basic demographics of providers (Garland, Brookman-Frazee, et al. 2010b; Hawley and Weisz 2005; Bickman et al. 2011).

National reports highlight current and projected mental health workforce shortages, particularly, but not exclusively, in rural areas (SAMHSA 2012). Workforce shortages may worsen if more people are able to access care due to recent policy initiatives to (a) expand health care coverage, and (b) achieve parity for mental health care relative to physical health care. In addition to workforce shortages, inadequate and variable training, lack of quality assurance on continuing education, limited post-professional education, and high rates of staff turnover have been identified as workforce challenges that potentially limit the effectiveness of usual mental health care (IOM 2001; Satcher 2000; Schoenwald et al. 2010).

Clients and Families

Given the lack of a public health surveillance system to comprehensively track use of mental health services, there is no national database for comprehensive data on those receiving care, but data are available from individual studies. Studies reporting on children in UC report diversity in age, gender, race/ethnicity, culture, diagnosis, co-occurring conditions, risk and protective factors, family constellation, and other contextual factors (Brookman-Frazee et al. 2010; Friedman et al. 1996; Liao et al. 2001; Manteuffel et al. 2002). Most studies report a gender ratio of approximately 2:1, with twice as many boys as girls being served (Zima et al. 2005), but this may differ by age group. For example, one study based on self-report among youth ages 12–17, found that females were more likely to report receiving care (SAMHSA 2012). The race/ethnic distribution of children in care is likely reflective of the geographic region, although one study found that African American children were over-represented and Latino children under-represented in a large publicly-funded care system relative to their representation in the regional population (McCabe et al. 1999). Given that clinical

characteristics are assessed differently across studies (e.g., diagnosis vs dimensional ratings) it is difficult to consolidate findings, but most reports indicate that the most common presenting problems include disruptive behavior, attention, and mood problems (e.g., Garland et al. 2001; Merikangas et al. 2010).

One of the important questions relevant for efforts to translate research findings into action in UC is the extent to which UC populations are consistent with research trial samples. One of the criticisms of the research literature supporting EB interventions has been discrepancies between research trial samples and the UC patient population on socio-demographic variables such as race/ethnicity and socio economic status, as well as clinical variables such as diagnostic comorbidity (Baker-Ericzén et al. 2010). Shirk (2001) noted over a decade ago that the diversity of UC samples seem to stand in stark contrast to the samples of children studied in efficacy research, but there are only a few studies that offer direct comparisons. Among samples of children treated for anxiety, significant differences between EB trial research samples and UC samples have been found for child symptom severity, comorbidity, race/ethnicity, family income, and family living arrangements (Southam-Gerow et al. 2003; Weersing et al. 2006; Weersing and Weisz 2002). Among children with disruptive behavior problems, child symptom severity was similar across EB trial and UC samples, but meaningful differences on other demographic variables (child age, race/ethnicity, SES, family constellation) were identified (Baker-Ericzén et al. 2010). There appears to be progress in reducing some of the discrepancies between research trial samples and UC clients; for example, intervention research studies have included a larger representation of race/ethnic minority youth in recent years (Huey and Polo 2008). However, many potentially confounding contextual factors differentiating research trial samples from UC samples (e.g., client recruitment processes and supports potentially associated with treatment expectations and motivation) still limit the extent to which findings from intervention efficacy and even effectiveness trials can be generalized to UC.

Care Improvement Targets

Building on the basic descriptive foundational knowledge about UC contexts summarized above, the remainder of this selective review is devoted to highlighting problems with UC services, and promoting specific care improvement strategies to address those problems. Given the discouraging data on the ineffectiveness of UC services, there is a critical need to capitalize on all the knowledge we have about how to improve care. Our promotion of empirically supported intervention strategies implemented in UC is organized around the following three broad critical improvement target areas we have identified as essential for improving the children's mental health system: (1) Service access and engagement; (2) Delivery of EB practices; and (3) Outcome accountability. Promising strategies to address these three critical targets are listed in Table 1 below, by intervention level. In the text that follows, we address each target area by providing evidence of: (a) the problem, thus supporting the need for improvement, and (b) examples of promising intervention strategies to address the improvement target with supporting research to inform implementation of these strategies.

Target Area #1: Service Access and Engagement

Need for Improvement in Service Access and Engagement

Significant unmet need for children's mental health care has been well documented with some estimates suggesting that fewer than half of those who need such care receive it (Kataoka et al. 2002; Merikangas et al. 2009). Several child and family characteristics have been associated with likelihood of receiving care, but somewhat surprisingly, severity of impairment was not associated with service use in a large national study (Merikangas et al.

2010), thus reinforcing concerns about identification and referral pathways and suggesting that many factors other than extent of need predict use. Disparities in use of care are well documented with children from racial and ethnic minority backgrounds (Garland et al. 2005; Kataoka et al. 2002) and children in rural geographic locations (Merikangas et al. 2010) demonstrating higher rates of unmet need in most studies. In addition to availability of providers, barriers in access to care may include fiscal factors (e.g., income and insurance coverage) (Hoberman 1992), and cultural attitudes or preferences, including perceived stigma (Munson et al. 2009; Pumariega et al. 2005). Caregiver (herein after referred to as parent) characteristics such as reported care-giving strain, are also positive predictors of accessing mental health care for children (McCabe et al. 2003; Shin and Brown 2009).

In addition to problems with service access, there are significant service engagement (defined as attendance and participation) challenges once services are initially accessed. Client attendance is an ongoing problem in outpatient mental health, with studies estimating that 40–60 % of children receiving outpatient mental health services attend few sessions and drop out prematurely (Gopalan et al. 2010). A recent review identified many youth, parent, and family characteristics associated with attendance, including child ethnicity (Caucasian families attend more sessions), child problem severity (children with more severe problems attend more sessions) and parent stress and psychopathology (parents experiencing greater struggles have children who attend fewer sessions) (Gopalan et al. 2010). Studies have also indicated that perceptual barriers such as parents' attitudes about mental health care and the extent to which care matches their expectations are more important in hindering attendance than concrete barriers such as transportation and child care (Bannon and McKay 2005; McKay et al. 2001).

Both parent and child participation in services is associated with better outcomes (Dowell and Ogles 2010; Karver et al. 2006; Noser and Bickman 2000). Yet, surprisingly little is known about parent and child participation in UC. Our work has found that parents attended 70 % of UC sessions for children ages 4–13 with disruptive behavior (not necessarily for the entire session, but for at least enough time for therapists to direct an intervention strategy to them) (Garland et al. 2010b), and on average therapists directed therapeutic strategies to parents for about half of each session (Haine-Schlagel et al. 2012). These studies indicate that parents are involved in UC but more research is needed on how parents can participate most constructively, as well as effective strategies to engage them.

Promising Strategies to Improve Service Access and Engagement

As noted in Table 1, intervention strategies to improve service access and engagement at the federal and state policy or funding level include expanding fiscal coverage for services and improving the integration of behavioral health services with more universal services such as primary care and education. Some experts predict that implementation of the federal Patient Protection and Affordable Care Act will improve access by expanding Medicaid coverage with parity for mental health services and tracking disparities in treatment access (Croft and Parish 2012). However, a recent study examining the impact of a parity act for federal employees found that behavioral health service use decreased after parity was implemented (Goldman et al. 2012). The authors speculated that managed care interventions associated with the parity program may have reduced service use; the extent to which these findings would generalize to other federal initiatives is not known. Likewise, the extent to which expanded health insurance coverage will result in greater access to mental health care among children is also uncertain; findings from an older study suggest that children with private insurance were no more likely to use care than their uninsured peers (Glied et al. 1998). These somewhat counter-intuitive findings reinforce the fact that there are many objective and subjective factors influencing identification, referral, access, and utilization of children's mental health care.

Additionally, emphasis on "medical home" models in health care reform may result in more efficient access to specialty mental health care through primary care coordination teams (Croft and Parish 2012). Innovative collaborative care models representing strong integration of primary care and behavioral health care have been shown to reduce barriers to mental health care access (Aupont et al. 2012).

Effective interventions to improve engagement in services once accessed have also been implemented at the provider organization and individual provider levels. As noted in Table 1, these interventions train service staff to address parents' expectations and concerns, and they have been effective in increasing attendance for culturally diverse urban populations in community-based care by targeting individual provider practices (McKay et al. 1996a, b, 1998). In addition, these interventions have been applied to the organizational context and have been successful in improving organization-wide attendance outcomes (Cavaleri et al. 2006, 2010).

There are also promising interventions at the client and family level designed to improve service engagement. Specifically, the role of professional peer family advisors (also called family partners) has been growing in recent years and the limited research conducted on this model shows promise in supporting and training families to engage and participate in services (Hoagwood et al. 2010). One of the goals of family support programs is to reduce stigma as a potential barrier to service access and engagement (Hoagwood et al. 2010). More research on the impact of family advocates and advisors on families' access, engagement, and outcomes in UC contexts is certainly needed.

Emerging descriptive research of factors associated with treatment engagement patterns can help to tailor improvement efforts. For example, some evidence suggests that single parents of young female children and children with low symptom severity at treatment entry may be the least likely to participate (engage) in treatment, thus requiring more engagement training and support (Haine-Schlagel et al. 2012). In addition, therapists may need more training and strategic tools to involve parents who exhibit more externalized parent strain (e.g., anger and resentment) as these parents have demonstrated less participation (Haine-Schlagel et al. 2012). More specific research on how different types of parent engagement (e.g., within-session skill practice, and/or between session "homework'') may be associated with differential outcomes is needed.

Individual provider, practice, and clinic characteristics are also associated with parent participation. At the individual provider level, one study found that a significant proportion of the variance in how much therapists involved parents was attributed to the provider, and specifically, that therapists with more experience involved parents more than less experienced therapists (Haine-Schlagel et al. 2012). A study conducted in Europe (Israel et al. 2007) found that a small percentage of variance in parent attendance was attributable to the clinic level of analysis, suggesting that clinic-wide policies and practices, as well as culture and climate, should be pursued as a potential avenue for enhancing attendance. Finally, emerging research also indicates that providers' in-session practices are associated with differential client attendance in UC. Specifically, our research group has found that children who received more intensive treatment techniques consistent with EB practice attended more sessions (Garland et al. 2012). This finding illustrates the inter-connection between the Care Improvement Targets #1 and #2 in Table 1, suggesting that delivery of EB treatment can impact service engagement—and logically, vice versa, since EB treatment can only be delivered if families attend and are engaged in services. Further, combining both engagement interventions and delivery of EB treatments together may yield even greater treatment effectiveness in UC.

Target Area #2: Delivery of Evidence-Based (EB) Practices

Need for Improvement in Delivery of EB Practices

Despite many funding policy initiatives to promote EB practices (e.g., Chambers et al. 2005) and considerable advances in the identification of EB practices, the limited available research on UC indicates that EB practices (assessment and treatment) are not being delivered with sufficient intensity or consistency in community-based care (Garland et al. 2010b; Jensen-Doss and Hawley 2010; Kazdin and Weisz 2003; Mitchell 2011; Zima et al. 2005). Findings from studies relying on medical record review, provider self-report, and practice observation all reflect big gaps between identified EB practice and common UC practice. For example, Zima and colleagues (2005) conducted a comprehensive review of medical records to characterize treatments received by 813 children with the most common diagnoses receiving out-patient publicly-funded care in California. They found that approximately half of the patients' charts did not meet basic treatment quality indicators based primarily on EB "best practices.''

Studies relying on individual provider self-report also reflect variability in practice, with provider preferences for eclectic intervention approaches (Baumann et al. 2006; Weersing et al. 2002) and assessment procedures (Jensen-Doss and Hawley 2010). There have been a number of studies specifically assessing UC clinicians' perceived support for EB practices and findings have differed depending on how EB practice is defined and how preferences are assessed (Aarons 2004; Borntrager et al. 2009; Brookman-Frazee et al. 2009). Research has demonstrated that attitudes can differ by provider characteristics, service setting, and clinical population characteristics. Important nuances in provider attitudes about EB practice have been revealed; for example, providers across disciplines have endorsed positive attitudes about EB practice elements, but attitudes about treatment manuals appear to be more negative (Borntrager et al. 2009; Brookman-Frazee et al. 2009; Nakamura et al. 2011). However, even though UC clinicians express positive attitudes towards a variety of practice elements consistent with EB treatments, research (summarized below) suggests that the extent to which this results in consistent delivery of EB practice elements in UC is limited.

Observational data on UC practice for children ages 4–13 with disruptive behavior disorders has revealed variability in UC psychotherapy practice (Garland et al. 2010b). Some practice elements common in EB treatments were observed relatively frequently (such as positive reinforcement and psychoeducation), but others (such as behavioral rehearsal for skill building) were observed in few sessions. In addition, the average intensity of all observed practice elements was low and thus inconsistent with EB practice interventions. As a rare glimpse into UC therapists' offices, this study provided encouraging news suggesting that many therapeutic approaches common in EB treatments were not foreign to UC therapists (thus supporting the potential contextual "fit" for these approaches), but the study findings also underscored the discouraging fact that these EB approaches are not being delivered with the consistency or intensity that could result in better outcomes. The findings thus highlight the need to increase the frequency and intensity of delivery of EB practice elements in UC (Garland et al. 2010a).

Promising Strategies to Improve Delivery of EB Practices

Table 1 lists strategies to improve delivery of EB practices across the levels of intervention. For example, state and federal sociopolitical and funding contexts can facilitate delivery of EB practices by promoting funding opportunities and incentives for providers to use such practices. Not surprisingly, organizations are likely to implement an EB intervention if there are economic and/or other incentives to do so (Mendel et al. 2008). Economic incentives such as pay-for-performance contracts may facilitate delivery of EB practices (Jensen and

Foster 2010). Alternatively, funding limitations and inflexible reimbursement systems are the most commonly reported reasons for "de-adoption" (i.e., lack of sustainment) of innovative practices (Massatti et al. 2008).

All 50 states in the U.S. reportedly "promote, require, or support" the use of EB practices in children's mental health service delivery in some way, but only eight states have explicitly mandated their mental health care systems to "promote, require, or support" specific EB practices (Cooper et al. 2008). The impact of policy and funding interventions to support EB practice implementation on service effectiveness is not yet well established given the recency of most interventions, but preliminary observational data are encouraging. For example, data from a comprehensive Quality Improvement initiative for children's mental health care in the State of Hawaii demonstrate a link between enhanced delivery of care consistent with EB practices and better clinical outcomes (i.e., faster improvements in functional outcomes) for children within a statewide UC system (Daleiden et al. 2006).

Promising interventions to support implementation of EB practices have also been delivered at the organizational provider agency level (Glisson and Schoenwald 2005; Glisson et al. 2010). These interventions target organizational culture and climate, including specifically leadership, to build the infrastructure to support EB practice delivery. Glisson and colleagues (2010) demonstrated that a two-level strategy in which an organizational intervention (ARC) was combined with an EB treatment (MST) intervention resulted in more positive youth outcomes, compared to other conditions (UC, MST only, ARC only) (Glisson et al. 2010).

Much of the research on improving the delivery of EB practices in UC has focused on training individual providers and there have been significant advances in knowledge about effective training methods (Beidas and Kendall 2010; Beidas et al. 2011; Herschell et al. 2010; Lyon et al. 2011). Several reviews and meta-analyses investigating training methods have reinforced a similar conclusion, namely that provision of a treatment manual and didactic training alone are usually insufficient to achieve adequate adoption or sustainable fidelity to desired treatment approaches, let alone impact client outcomes. More active teaching methods (such as in vivo practice with coaching) and follow-up supervision and/or consultation after initial training are likely necessary to change practice (Beidas and Kendall 2010; Beidas et al. 2011; Herschell et al. 2010; Lyon et al. 2011). Effective training of mental health providers should incorporate effective training practices identified in related disciplines, such as academic detailing, inter-professional education, problem-based learning, coaching, and self-regulated learning (Lyon et al. 2011).

Training in EB practices needs to be emphasized across all mental health disciplines and at different levels of education and experience. In fact, many graduate education programs across disciplines have incorporated EB training in their curricula, but the extent to which this is supported by the types of active training methods described above (e.g., ongoing supervision with observational data, etc.) is uncertain (Patterson et al. 2004; Weissman et al. 2006). Continuing education is a very promising avenue for EB practice training, but there is limited evidence that this mechanism is being leveraged well now. Government agencies or boards overseeing licensing for mental health professionals should link continuing education requirements more explicitly to EB practice training. Rapidly advancing technologies that support social networking, teleconferencing, and web-based learning present efficient and potentially effective training and monitoring opportunities.

In addition to research identifying effective provider training methods, recent research has promoted innovative approaches to the use of EB treatment content for EB practice implementation. For example, investigators working in different clinical problem areas,

including disruptive behavior problems (Garland et al. 2008), anxiety and depression (Sburlati et al. 2011), and autism (Rogers and Vismara 2008) have identified practice elements (also called core competencies) common across multiple individual EB treatment protocols. We and others have proposed that training on these common elements of EB practice may offer an efficient and ecologically valid approach to improving the effectiveness of UC (Chorpita et al. 2005; Garland et al. 2008; Rotheram-Borus et al. 2012). Chorpita and colleagues (Chorpita and Daleiden 2009) have developed a sophisticated approach to empirically identifying EB practice element profiles for youth with diverse presenting problems and training providers on how to coordinate and assess delivery of EB practice elements. In a multi-site randomized trial using community clinicians and clinically referred youths/families, clinical outcomes were significantly better among children treated by providers who received training in a modularized approach (clinicians also received feedback on client progress in treatment) (Weisz et al. 2011). Additional studies are beginning to provide evidence that training providers in UC contexts to integrate EB approaches more strongly into their interventions will result in enhanced clinical outcomes (e.g., Farmer et al. 2010; Kolko et al. 2009). In our observational study of UC we found that when families received care more consistent with EB approaches, parents reported greater treatment benefit (Haine-Schlagel et al. Under review).

Despite all the research and policy attention to promoting implementation of EB practices, there has been minimal research on the role clients and their families can play in driving improved delivery of EB practice (Birkel et al. 2003). However, as noted in Table 1, consumer education and activation could potentially be a powerful force for improving treatment. Policy makers recognize that changes in all types of health care often depend largely on consumer activation to impact demand (Flynn 2005; Kelleher 2010). Limited research in adult mental health contexts suggests that consumers have minimal knowledge about EB practices, but are generally supportive (Scheyett et al. 2006). A national study indicates that only 11 % of family members surveyed had ever heard about EB practices (Cooper et al. 2008) thus there is significant "room for improvement" in consumer education and activation. The success of parent advocacy groups in lobbying for insurance legislation mandating coverage of EB intervention in many states (Wilczynski et al. 2012) highlights the potential for the role of consumer demand for EB interventions in child mental health services.

It is not enough to simply train providers in EB practices without assessing the extent to which such training actually results in changes in practices, and improved outcomes. In order to build more effective care by promoting more effective interventions, effective and efficient methods to assess service delivery must be utilized (Schoenwald et al. 2010). Continuous quality improvement feedback loops that link provider practice data to patient outcome data will help shape the development of improved services. Assessment of outcome data is thus the focus of the last broad outcome target presented below. Administrative datasets that allow sophisticated assessment of practice delivery, outcomes, and costs can facilitate needed cost-benefit studies which can ultimately drive policy and practice change (Foster and Holden 2002). The challenges of improving the delivery of EB practice may be more effectively addressed by adopting a business marketing perspective providing evidence of cost-benefit to consumers, providers, and the government (Jensen and Foster 2010).

Target Area #3: Outcome Accountability

Need for Improvement in Outcome Accountability

There are multiple accountability mechanisms for service providers driven by federal, state, or local regulations, funding requirements, discipline-specific professional boards, and/or organizational structures. For example, hospitals are routinely surveyed for accreditation by

The Joint Commission (TJC), [formerly the Joint Commission on Accreditation of Healthcare Organizations (JCAHO)] to assess care quality and safety. In addition, many professional organizations hold individual providers accountable for meeting licensure and continuing education requirements based presumably on an assumption that these requirements are proxy indicators for minimal service quality, safety, and clinical effectiveness (despite the lack of data to support an association between continuing education and service effectiveness) (Bickman 2008). Public and private provider organizations also often have multiple internal mechanisms for assessing service quality, frequently including evaluation of consumer satisfaction (Aarons et al. 2010; Garland et al. 2007). Unfortunately, satisfaction data are not strong indicators of clinical effectiveness for mental health care (Garland et al. 2003a; Lambert et al. 1998). These are but a few examples of current accountability mechanisms, none of which directly address clinical effectiveness outcomes.

Despite national calls and initiatives for mental health outcome measurement over the past two decades, and a flurry of activity reflected in specialized journals, conferences, etc. (e.g., Behavioral Health Outcomes and Behavioral Health Accreditation and Accountability Alert 1996; Hernadez et al. 2001; Smith et al. 1997), routine mental health care rarely includes systematic assessment or feedback on patient outcome progress (Bickman and Noser 1999; Bickman 2008). Outcome accountability is needed as it can contribute to program planning at the aggregate level and can improve clinical decision-making at the individual provider-patient level (Bickman et al. 2011). However, measurement requires initial resource investment and there are few incentives to measure outcomes at the aggregate level.

The lack of outcome accountability in mental health and social services is due in part to valid and significant feasibility and methodological challenges, but may also be due to concerns about transparency and accountability (Bickman 2012). Measuring the clinical effectiveness of children's mental health care is complex and conclusions can differ depending on what outcomes are assessed, how and from whose perspective they are assessed, and when they are assessed (e.g., Brookman-Frazee et al. 2006). However, this complexity should not be used as justification to avoid measurement. While more research is clearly needed to optimize both the efficiency and validity of outcome measurement feedback systems, we should be capitalizing on the use of currently available systems that have evidence supporting their potential validity and impact on improved clinical outcomes (e.g., Bickman et al. 2011; Reimer et al. 2012; Stein et al. 2010). Unfortunately, there is limited evidence of broad adoption of feedback measurement systems in UC.

Promising Strategies to Improve Outcome Accountability

As indicated in Table 1, at the policy and funding level outcome accountability should be incorporated into existing regulatory standards and mechanisms that currently assess service safety and "quality" of care. Organizations and individual providers need incentives to track clinical outcomes at both the aggregate organizational level and individual provider levels. One quasi-experimental study on the impact of "pay-for-performance" incentives for care of depressed adult patients found that patients improved more quickly after the incentive program was implemented in an organization (Unutzer et al. 2012). More research on the impact of performance-based outcome measurement incentives in children's mental health is needed, with attention to the methodological and ethical implications of these incentives.

Table 1 also highlights the importance of outcome measurement systems implemented at the organizational level. In the past decade, there has been considerable progress in the development of potentially effective and efficient outcome measurement systems that have been utilized at the state or county level by public service systems and UC provider organizations (e.g., Bickman 2012; Daleiden and Chorpita 2005; Healy and Roth 2010;

Hodges and Wotring 2004; Reimer et al. 2012; Rouse et al. 1998; Stein et al. 2010; Trask and Garland 2011). For example, since 2008, Hawaii's child and adolescent mental health system has used a feedback system whereby agencies receive semi-annual reports documenting client outcomes on the Child and Adolescent Functional Assessment Scale (CAFAS) and Monthly Treatment Progress Summary (MTPS). Reports are provided for each level of care. In addition to client outcomes, the reports include the frequency of different treatment techniques delivered by the agency and how this compares to the frequency of the technique in EB treatment protocols. Agencies review reports, identify strengths and weaknesses, and develop plans for improvement (Higa-McMillan et al. 2011). Measurement of treatment process and outcomes allows for examination of which processes mediate outcomes (Reimer et al. 2012) and identifies "practice-based evidence" of effective interventions. As noted at the end of the previous section addressing delivery of EB practices, linking data on practice delivery to data on patient outcomes provides essential data for continuous quality improvement at both the aggregate service level and individual client/family level.

As indicated in Table 1, there is much room at the individual provider and client/family levels for training on the utility and value of outcome monitoring. Some of the most promising evidence for the potential positive impact of a measurement feedback system comes from a recent study by Bickman and colleagues (2011). They found that clinical outcomes for children in usual community-based care were better when providers had access to weekly feedback on a standardized assessment of children's symptoms and functioning. Further, they found a "dose–effect" response whereby there was a positive association between providers' frequency of use of outcome measurement feedback and the extent of child improvement, thus reinforcing support for the value of routine, systematic outcome measurement and feedback to providers. There has been a growing literature on "patient-focused" research methods to efficiently and effectively assess individual patient's progress in treatment and to identify risk for negative outcomes (e.g., Howard et al. 1996; Warren et al. 2012). Use of outcome monitoring systems has demonstrated a positive impact on treatment effectiveness and efficiency for adult and child/family services (Lambert and Shimokawa 2011; Shimokawa et al. 2010; Timimi et al. 2012). Outcome monitoring "warning" systems have also been shown to accurately identify youths who are at-risk for treatment failure (Warren et al. 2012). Thus, there is great potential utility for measurement systems that can be used to assess treatment progress (or lack thereof).

There is very little research on client and family targeted interventions regarding outcome accountability, but studies of client service preferences provide some insights. Specifically, when parents and youths report dissatisfaction with services, they emphasize the need for more effective, outcome-driven treatments (Baker-Ericzén et al. 2012). In addition, although some providers express concern about the respondent burden placed on families to complete outcome monitoring assessments (Garland et al. 2003b), there is no research clearly supporting this concern. In fact, a stronger emphasis on outcome monitoring and accountability is consistent with attitudes expressed by some UC parents and youths (Baker-Ericzén et al. 2012).

Given the promising impact of outcome accountability measurement, it is important to examine UC contextual factors that may facilitate and/or inhibit such interventions. Results from national studies of clinicians who provide mental health services to children and adolescents indicate that the majority (between 54 and 74 %) of clinicians report using standardized measures in practice (Hatfield and Ogles 2004; Jensen-Doss and Hawley 2010; Schoen-wald et al. 2008). However, use of standardized assessment measures in practice does not necessarily translate to use of standardized measures to evaluate treatment process or outcome. In our study of UC providers who utilized standardized outcome measures as

required by their funder, we learned that most clinicians expressed ambivalence about the utility of the measures, and did not use them for treatment planning or examination of client outcomes (Garland et al. 2003b). One reason for this discrepancy may be that while standardized outcome measures can demonstrate changes in clients' symptoms, some clinicians may prefer to use other types of information to gauge treatment progress. For example, a survey of clinicians who provided treatment to children and adolescents in a managed care organization revealed that when clinicians were given the option of receiving any type of regular feedback regarding their clients, they were most interested in contextual factors such as a client's history of maltreatment and current family functioning, as well as process factors such as measures of therapeutic alliance (Bickman et al. 2000). Many UC clinicians may also place greater value on their own intuition and signs of functional patient outcomes (e.g., school grades) than on standardized measures of emotional or behavioral functioning as indicators of treatment progress (Garland et al. 2003a, b). Unfortunately, clinicians' subjective perceptions of clients' improvement have been only minimally associated with standardized, prospectively measured change on outcome measures (Love et al. 2007) and client characteristics, such as race/ethnicity, moderate this correspondence (Haine et al. 2007). More work is needed to reinforce the clinical utility of outcome measurement at the policy, organizational provider, individual provider and client/family levels to identify incentives for use of standardized measures and outcome accountability interventions. A culture of constructive critical review of care effectiveness needs to be cultivated in mental health, balanced by appreciation for the methodological complexities, and the reality that some aspects of mental health care delivery and outcomes will always elude measurement.

Conclusions

It is often challenging for all the diverse stakeholders involved in caring for children with mental health needs to access and incorporate empirically-derived knowledge on even one specific aspect of children's mental health care, let alone the diverse research literature addressing a wide array of care contexts, intervention levels, treatment types, clinical problems, and patient and family characteristics emerging from different fields (Mitchell 2011). Therefore, our goal was to synthesize current knowledge about specialty out-patient children's mental health care and to highlight needed improvements to provide a consolidated empirical foundation on which to build a more effective service system for children and families. While the scope of our review was relatively wide, it is important to note that there are many important service system contexts we did not address, including the education and primary care sectors where many children receive care, and the child welfare and juvenile justice sectors where rates of need for mental health care are significantly elevated. Improved coordination of care across these service sectors has been a goal for 30 years (Cooper et al. 2008; Knitzer 1982).

The mental health and social service structures that we build over the next few decades will likely look very different than our current structures. For example, we will hopefully succeed in incorporating a public health framework emphasizing prevention and health promotion with interventions targeting risk and protective factors at the societal, community, family, and individual levels (Stiffman et al. 2010). Mental health promotion may be woven into our daily lives in ways that we can't even imagine at this time, through media, education, recreation, environmental, and perhaps even nutrition sources. In addition, as neuroscience and genetic discoveries advance, innovative methods for early detection and manipulation of neurobiological risk and protective factors for mental health problems will likely be refined and implemented. Technological and communication advances may enable entirely new psychosocial assessment and intervention methods that will be more accessible and effective than current methods. We need to devote considerable resources to exploring

and developing these types of new frontiers. However, we cannot wait complacently for new discoveries as millions of children enter and often languish in our current mental health services. We need to mobilize all of the individuals and organizations that have a stake in our children's future (i.e., virtually everyone), to make changes to the current system to improve care for children right now. Mental health providers and researchers need to partner with policy experts, lobbyists, entrepreneurs, system engineers, and educators who know how to change existing systems. Let us capitalize on the research investments over the past few decades by implementing the strategies that we know can improve care now.

Acknowledgments

References

Aarons GA. Mental health provider attitudes toward adoption of evidence-based practice: The evidence-based practice attitude scale (EBPAS). Mental Health Services Research. 2004; 6(2):61–74. [PubMed: 15224451]

Aarons GA, Covert J, Skriner LC, Green A, Marto D, Garland AF, et al. The eye of the beholder: Youths and parents differ on what matters in mental health services. Administration and Policy in Mental Health. 2010; 37(6):459–467. [PubMed: 20140489]

Aarons GA, Hurlburt M, Horwitz SM. Advancing a conceptual model of evidence-based practice implementation in public service sectors. Administration and Policy in Mental Health. 2011; 38(1):4–23. [PubMed: 21197565]

Andrade AR, Lambert EW, Bickman L. Dose effect in child psychotherapy: Outcomes associated with negligible treatment. Journal of the American Academy of Child and Adolescent Psychiatry. 2000; 39:161–168. [PubMed: 10673825]

Aupont O, Doerfler L, Conner DF, Stille C, Tisminetzyk M, McLaughlin TJ. A collaborative care model to improve access to pediatric mental health services. Administration and Policy in Mental Health and Mental Health Services Research. 2012

Baker-Ericze´n M, Hurlburt M, Brookman-Frazee L, Jenkins M, Hough RL. Comparing child, parent and family characteristics in usual care and EST research samples for children with disruptive behavior disorders. Journal of Emotional and Behavioral Disorders. 2010; 18:82–99.

Baker-Ericze´n MJ, Jenkins M, Haine R. Therapist, parent, and youth perspectives of treatment barriers to family-focused community outpatient mental health child services. Journal of Child and Family Studies. 2012

Bannon WM, McKay MM. Are barriers to service and parental preference match for service related to urban child mental health service use? Families in Society. 2005; 86(1):30–34.

Baumann BL, Kolko DJ, Collins K, Herschell AD. Understanding practitioners' characteristics and perspectives prior to the dissemination of an evidence-based intervention. Child Abuse and Neglect. 2006; 30:771–787. [PubMed: 16846644]

Behavioral Health Outcomes & Behavioral Health Accreditation & Accountability Alert. Providence, PI: Manisses Communications Group; 1996.

Beidas RS, Kendall PC. Training therapists in evidence-based practice: A critical review of studies from a systems-contextual perspective. Clinical Psychology: Science and Practice. 2010; 17(1):1–30. [PubMed: 20877441]

Beidas RS, Koerner K, Weingardt KR, Kendall PC. Training research: Practical recommendations for maximum impact. Administration and Policy in Mental Health and Mental Health Services Research. 2011; 38:223–237. [PubMed: 21380792]

Bellamy JL, Gopalan G, Traube DE. A national study of the impact of outpatient mental health services for children in long-term foster care. Clinical Child Psychology and Psychiatry. 2010; 15:467–479. [PubMed: 20923897]

Beutler, LE.; Machado, PPP.; Neufeldt, SA.; Bergin, AE. Therapist variables. In: Bergin, AE.; Garfield, SL., editors. Handbook of Psychotherapy and Behavior Change. 4th ed.. Oxford: Wiley; 1994. p. 229-269.

Beutler, LE.; Malik, M.; Alimohamed, S.; Harwood, TM.; Talebi, H.; Noble, S., et al. Therapist effects. In: Lambert, MJ., editor. Bergin and Garfield's Handbook of Psychotherapy and Behavior Change. 5th ed.. New York: Wiley; 2004. p. 227-306.

Bickman L. The most dangerous and difficult question in mental health services research. Mental Health Services Research. 2000; 2:71–72.

Bickman L. A measurement feedback system (MFS) is necessary to improve mental health outcomes. Journal of the American Academy of Child and Adolescent Psychiatry. 2008; 47(10):1114–1119. [PubMed: 20566188]

Bickman L. Why can't mental health services be more like modern baseball? Administration and Policy in Mental Health. 2012; 39:1–2. [PubMed: 22407560]

Bickman L, Kelley S, Breda C, De Andrade A, Riemer M. Effects of routine feedback to clinicians on youth mental health outcomes: A randomized cluster design. Psychiatric Services. 2011; 62(12): 1423–1429. [PubMed: 22193788]

Bickman L, Noser K. Meeting the challenges in the delivery of child and adolescent mental health services in the next millennium: The continuous quality improvement approach. Applied and Preventive Psychology. 1999; 8(4):247–255.

Bickman L, Rosof-Williams J, Salzer MS, Summerfelt WT, Noser K, Wilson SJ, et al. What information do clinicians value for monitoring adolescent client progress and outcomes? Professional Psychology: Research and Practice. 2000; 31(1):70–74.

Birkel RC, Hall LL, Lane T, Cohan K, Miller J. Consumers and families as partners in implementing evidence-based practice. Psychiatric Clinics of North America. 2003; 26:867–881. [PubMed: 14711125]

Borntrager CF, Chorpita BF, Higa-McMillan C, Weisz JR. Provider attitudes toward evidence-based practices: Are the concerns with the evidence or with the manuals? Psychiatric Services. 2009; 60:677–681. [PubMed: 19411357]

Brookman-Frazee L, Garland AF, Taylor R, Zoffness R. Therapists' attitudes towards psychotherapeutic strategies in community-based psychotherapy with children with disruptive behavior problems. Administration and Policy in Mental Health and Mental Health Services. 2009; 36:1–12.

Brookman-Frazee L, Haine RA, Baker-Ericzen M, Zoffness R, Garland AF. Factors associated with use of evidence-based practice strategies in usual care youth psychotherapy. Administration and Policy in Mental Health and Mental Health Services. 2010; 37(3):205–207.

Brookman-Frazee L, Haine RL, Garland AF. Measuring outcomes of real-world youth psychotherapy: Who and what to ask? Psychiatric Services. 57. 2006:1373–1375.

Bruns EG, Hoagwood KE, Rivard JC, Wotring J, Marsenich L, Carter B. State implementation of evidence-based practice for youths, part II: Recommendations for research and policy. Journal of the American Academy of Child and Adolescent Psychiatry. 2008; 47:499–504. [PubMed: 18438187]

Cavaleri MA, Gopalan G, McKay MM, Appel A, Bannon WM Jr. Bigley MF, et al. Impact of a learning collaborative to improve child mental health service use among low-income urban youth and families. Best Practices in Mental Health. 2006; 2:67–78.

Cavaleri MA, Gopalan G, McKay MM, Messam T, Velez E, Elwyn L. The effect of a learning collaborative to improve engagement in child mental health services. Children and Youth Services Review. 2010; 32:281–285.

Chambers DA, Ringeisen H, Hickman EE. Federal, state, and foundation initiatives around evidence-based practices for child and adolescent mental health. Child and Adolescent Psychiatric Clinics of North America. 2005; 14:307–327. [PubMed: 15694788]

Chorpita BF, Daleiden EL. Mapping evidence-based treatments for children and adolescents: Application of the distillation and matching model to 615 treatments from 322 randomized trials. Journal of Consulting and Clinical Psychology. 2009; 77(3):566–579. [PubMed: 19485596]

Chorpita BF, Daleiden EL, Weisz JR. Identifying and selecting the common elements of evidence based interventions: A distillation and matching model. Mental Health Services Research. 2005; 7:5–20. [PubMed: 15832690]

Cooper, JL.; Arantani, Y.; Knitzer, J.; Douglas-Hall, A.; Masi, R.; Banghart, P., et al. Unclaimed children revisited: The status of children's mental health policy in the United States. New York: National Center for Children in Poverty; 2008.

Croft B, Parish SL. Care integration in the patient protection and affordable care act: Implications for behavioral health. Administration and Policy in Mental Health and Mental Health Services Research. 2012; 35:21–37.

Daleiden E, Chorpita BF. From data to wisdom: Quality improvement strategies supporting large-scale implementation of evidence based services. Child and Adolescent Psychiatric Clinics of North America. 2005; 14:329–349. [PubMed: 15694789]

Daleiden EL, Chorpita BF, Donkervoet CM, Arensdorf AA, Brogan M. Getting better at getting them better: Health outcomes and evidence-based practice within a system of care. Journal of the American Academy of Child and Adolescent Psychiatry. 2006; 45:749–756. [PubMed: 16721326]

Damschroder L, Aron D, Keith R, Kirsch S, Alexander J, Lowery J. Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science. Implementation Science. 2009; 4:50–65. [PubMed: 19664226]

Dowell KA, Ogles BM. The effects of parent participation on child psychotherapy outcome: A meta-analytic review. Journal of Clinical Child & Adolescent Psychology. 2010; 39(2):151–162. [PubMed: 20390807]

Farmer EMZ, Burns BJ, Wagner HR, Murray M, Southerland DG. Enhancing "usual practice" treatment foster care: Finding from a randomized trial on improving youths' outcomes. Psychiatric Services. 2010; 61(6):555–561. [PubMed: 20513677]

Feldstein A, Glasgow R. A practical, robust implementation and sustainability model (PRISM). Joint Commission Journal on Quality and Patient Safety. 2008; 34:228–243. [PubMed: 18468362]

Flynn LM. Family perspectives on evidence-based practice. Child and Adolescent Psychiatric Clinics of North America. 2005; 14:217–224. [PubMed: 15694782]

Foster ME, Holden EW. Benefit-cost analyses of the child welfare demonstration projects: Understanding the resource implications of the IV-E Waivers. Children and Youth Services Review. 2002; 6(7):431–453.

Friedman, RM.; Kutash, K.; Duchnowski, AJ. The population of concern: Defining the issues. In: Stroul, BA., editor. Children's mental health: Creating systems of care in a changing society. Baltimore: Paul H. Brookes; 1996. p. 69-96.

Garland AF, Aarons GA, Hawley K, Hough RL. Relationship of youth satisfaction with services and changes in symptoms and functioning. Psychiatric Services. 2003a; 54:1544–1546. [PubMed: 14600318]

Garland AF, Accurso EC, Haine-Schlagel R, Brookman-Frazee L, Roesch S. Searching for common elements of evidence-based practices in children's usual care and examining their impact. (Under Review).

Garland AF, Bickman L, Chorpita BF. Change what? Identifying quality improvement targets by investigating usual mental health care. Administration and Policy in Mental Health and Mental Health Services. 2010a; 37(1–2):15–26.

Garland AF, Brookman-Frazee L, Hurlburt MS, Accurso EC, Zoffness R, Haine-Schlagel RA, et al. Mental health care for children with disruptive behavior problems: A view inside therapists' offices. Psychiatric Services. 2010b; 61:788–795. [PubMed: 20675837]

Garland A, Haine RA, Boxmeyer CL. Determinates of youth and parent satisfaction in usual care psychotherapy. Evaluation and Program Planning. 2007; 30:45–54. [PubMed: 17689312]

Garland AF, Haine-Schlagel R, Accurso EC, Baker-Ericzen MJ, Brookman-Frazee L. Exploring the effect of therapists' treatment practices on client attendance in community-based care for children. Psychological Services. 2012; 9:74–88. [PubMed: 22449089]

Garland AF, Hawley KM, Brookman-Frazee L, Hurlburt M. Identifying common elements of evidence-based psy-chosocial treatments for children's disruptive behavior problems. Journal of

the American Academy of Child and Adolescent Psychiatry. 2008; 47:505–514. [PubMed: 18356768]

Garland AF, Hough R, McCabe K, Yeh M, Wood P, Aarons G. Prevalence of psychiatric disorders for youths in public sectors of care. Journal of the American Academy of Child and Adolescent Psychiatry. 2001; 40:409–418. [PubMed: 11314566]

Garland AF, Hurlburt MS, Brookman-Frazee L, Taylor RM, Accurso EC. Methodological challenges of characterizing usual care psychotherapeutic practice. Administration and Policy in Mental Health and Mental Health Services. 2010c; 37:208–220.

Garland AF, Kruse M, Aarons GA. Clinicians and outcomes measurement: What's the use? Journal of Behavioral Health Services and Research. 2003b; 30(4):393–405. [PubMed: 14593663]

Garland AF, Lau AS, Yeh M, McCabe KM, Hough RL, Landsverk JA. Racial and ethnic differences in utilization of mental health services among high-risk youths. American Journal of Psychiatry. 2005; 162:1336–1343. [PubMed: 15994717]

Glied SA, Garret B, Hoven C. Child mental health service use: Why doesn't insurance matter? Journal of Mental Health Economics and Policy. 1998; 1:173–187.

Glisson C, Landsverk J, Schoenwald S, Kelleher K, Hoagwood KE, Mayberg S, et al. Assessing the organizational social context (OSC) of mental health services: Implications for research and practice. Administration and Policy in Mental Health and Mental Health Services Research. 2008; 35:98–113. [PubMed: 18085434]

Glisson C, Schoenwald SK. The ARC organizational and community intervention strategy for implementing evidence-based children's mental health treatments. Mental Health Services Research. 2005; 7:243–259. [PubMed: 16320107]

Glisson C, Schoenwald SK, Hemmelgarn A, Green P, Dukes D, Armstrong KS, et al. Randomized trial of MST and ARC in a two-level evidence-based treatment implementation strategy. Journal of Consulting and Clinical Psychology. 2010; 78:537–550. [PubMed: 20658810]

Goldman HH, Barry CL, Normand ST, Azzone V, Busch AB, Huskamp HA. The price is right? Changes in the quantity of services used and prices paid in response to parity. Psychiatric Services. 2012; 63:107–109. [PubMed: 22302324]

Gopalan G, Goldstein L, Klingenstein K, Sicher C, Blake C, McKay MM. Engaging families into child mental health treatment: Updates and special considerations. Journal of the Canadian Academy of Child & Adolescent Psychiatry. 2010; 19:182–196. [PubMed: 20842273]

Grol R, Grimshaw J. Evidence based implementation of evidence-based medicine. The Joint Commission Journal on Quality Improvement. 1999; 25:503–513. [PubMed: 10522231]

Haine RA, Brookman-Frazee L, Tsai KH, Roesch SC, Garland AF. Clinician perspectives of diagnosis and perceived client change in "real world" psychotherapy for youth emotional and behavioral disorders. Journal of Child and Family Studies. 2007; 16:712–728.

Haine-Schlagel R, Brookman-Frazee L, Fettes DL, Baker-Ericzen M, Garland AF. Therapist focus on parent involvement in community-based youth psychotherapy. Journal of Child and Family Studies. 2012; 21(4):646–656. [PubMed: 22844188]

Haine-Schlagel R, Fettes DL, Garcia AR, Brookman-Frazee L, Garland AF. Consistency with evidence-based treatments and perceived effectiveness of children's community-based care. (under review).

Hatfield D, Ogles B. The use of outcome measures by psychologists in clinical practice. Professional Psychology: Research and Practice. 2004; 35:485–491.

Hawley KM, Weisz JR. Youth versus parent working alliance in usual clinical care: Distinctive associations with retention, satisfaction, and treatment outcome. Journal of Clinical Child and Adolescent Psychology. 2005; 34:117–128. [PubMed: 15677286]

Healy, J.; Roth, D. Outcomes measurement in Ohio and in the United States. In: Trauer, T., editor. Outcome measurement in mental health: Theory and practice. Cambridge: Cambridge University Press; 2010. p. 40-50.

Hernadez, M.; Hodges, S.; Nesman, TM.; Ringeisen, HL. Findings from the Chinsegut outcomes retreat. Developing outcome strategies in chidlren's mental health. Baltimore: Paul A. Brookes Publishing Co; 2001.

Herschell AD, Kolko DJ, Baumann BL, Davis AC. The role of therapist training in the implementation of psychosocial treatments: A review and critique with recommendations. Clinical Psychology Review. 2010; 30(4):448–466. [PubMed: 20304542]

Higa-McMillan CK, Powell CK, Daleiden EL, Mueller CW. Pursuing an evidence-based culture through contex-tualized feedback: Aligning youth outcomes and practices. Professional Psychology: Research and Practice. 2011; 42(2):137–144.

Hoagwood K, Burns BJ, Kiser L, Ringeisen H, Schoenwald SK. Evidence-based practice in child and adolescent mental health services. Psychiatric Services. 2001; 52:1179–1189. [PubMed: 11533391]

Hoagwood KE, Cavaleri MA, Olin SS, Burns BJ, Slaton E, Gruttadaro D, et al. Family support in children's mental health: A review and synthesis. Clinical Child and Family Psychology Review. 2010; 13:1–45. [PubMed: 20012893]

Hoberman HM. Ethnic minority status and adolescent mental health services utilization. Journal of Behavioral Health Services and Research. 1992; 3:246–267.

Hodges K, Wotring J. The role of monitoring outcomes in initiating implementation of evidence-based treatments at the state level. Psychiatric Services. 2004; 55(4):396–400. [PubMed: 15067151]

Howard KI, Moras K, Brill PL, Martinovich Z, Lutz W. The evaluation of psychotherapy: Efficacy, effectiveness, and patient progress. American Psychologist. 1996; 51:1059–1064. [PubMed: 8870542]

Huey SJ, Polo AJ. Evidence-based psychosocial treatments for ethnic minority youth. Journal of Clinical Child and Adolescent Psychology. 2008; 37(1):262–301. [PubMed: 18444061]

Institute of Medicine. Crossing the quality chasm: A new health system for the 21st century. Washington, DC: National Academy Press; 2001.

Institute of Medicine. Improving the quality of health care for mental and substance-use disorders. Washington, DC: National Academies Press; 2005.

Israel P, Thomsen PH, Langeveld JH, Stormark KM. Child factors associated with parent involvement in usual clinical care of children and adolescents: A national register study. Nordic Journal of Psychiatry. 2007; 61(3):173–181. [PubMed: 17523028]

Jensen PS, Foster M. Closing the research to practice gap in children's mental health: Structures, solutions, and strategies. Administration and Policy in Mental Health. 2010; 37:111–119. [PubMed: 20217208]

Jensen-Doss A, Hawley KM. Understanding barriers to evidence-based assessment: Clinician attitudes toward standardized assessment tools. Journal of Clinical Child & Adolescent Psychology. 2010; 39(6):885–896. [PubMed: 21058134]

Karver MS, Handelsman JB, Fields S, Bickman L. Meta-analysis of therapeutic relationship variables in youth and family therapy: The evidence for different relationship variables in the child and adolescent treatment outcome literature. Clinical Psychology Review. 2006; 26:50–65. [PubMed: 16271815]

Kataoka SH, Zhang L, Wells KB. Unmet need for mental health care among U.S. children: Variation by ethnicity and insurance status. The American Journal of Psychiatry. 2002; 159(9):1548–1555. [PubMed: 12202276]

Kazak AE, Hoagwood K, Weisz JR, Hood K, Kratochwill TR, Vargas LA, et al. A meta-systems approach to evidence-based practice for children and adolescents. American Psychologist. 2010; 65(2):85–97. [PubMed: 20141264]

Kazdin, AE.; Weisz, JR. Evidence-based psychother-apies for children and adolescents. New York: Guilford; 2003.

Kelleher K. Organizational capacity to deliver effective treatments for children and adolescents. Administration and Policy in Mental Health and Mental Health Services Research. 2010; 37:89–94. [PubMed: 20180149]

Knitzer, J. Unclaimed Children: The failure of public responsibility to children in need of mental health services. Washington, DC: Children's Defense Fund; 1982.

Kolko DJ, Dorn LD, Bukstein OG, Pardini D, Holden EA, Hart J. Community vs. clinic-based modular treatment of children with early-onset ODD or CD: A clinical trial with 3-year follow up. Journal of Abnormal Child Psychology. 2009; 37:591–609. [PubMed: 19221871]

Lambert W, Bickman L. The 'Clock Setting' cure: How children's symptoms might improve after ineffective treatment. Psychiatric Services. 2004; 55:381–382. [PubMed: 15067148]

Lambert W, Salzer MS, Bickman L. Clinical outcome, consumer satisfaction, and ad hoc ratings of improvement in children's mental health. Journal of Consulting and Clinical Psychology. 1998; 66:270–279. [PubMed: 9583330]

Lambert JJ, Shimokawa K. Collecting client feedback. Psychotherapy. 2011; 48:72–79. [PubMed: 21401277]

Liao Q, Manteuffel B, Paulic C, Sondheimer D. Describing the population of adolescents served in systems of care. Journal of Emotional and Behavioral Disorders. 2001; 9:13–29.

Lindhiem O, Kolko DJ. Trajectories of symptom reduction during treatment for behavior problems in pediatric primary-care settings. Administration and Policy in Mental Health and Mental Health Services. 2011

Love SM, Koob JJ, Hill LE. Meeting the challenges of evidence-based practice: Can mental health therapists evaluate their practice? Brief Treatment and Crisis Intervention. 2007; 7:184–193.

Lyon AR, Stirman SW, Kerns SEU, Bruns EJ. Developing the mental health workforce: Review and application of training approaches from multiple disciplines. Administration and Policy in Mental Health and Mental Health Services. 2011; 38:238–253.

Manteuffel B, Stephens RL, Santiago R. Overview of the national evaluation of the comprehensive community mental health services for children and their families program and summary of current findings. Children's Services: Social Policy, Research, and Practice. 2002; 5(1):3–20.

Manteuffel B, Stephens RL, Sondheimer DL, Fisher SK. Characteristics, service experiences, and outcomes of transition-aged youth in systems of care: Programmatic and policy implications. The Journal of Behavioral Health Services Research. 2008; 35:469–487. [PubMed: 18618264]

Massatti RR, Sweeney HA, Panzano PC, Roth D. The de-adoption of innovative mental health practices (IMHP): Why organizations choose not to sustain an IMHP. Administration and Policy in Mental Health and Mental Health Services Research. 2008; 35:50–65. [PubMed: 17968652]

McCabe K, Yeh M, Hough RL, Landsverk J, Hurlburt MS, Culver SW, et al. Racial/ethnic representation across five public sectors of care for youth. Journal of Emotional and Behavioral Disorders. 1999; 7:72–82.

McCabe KM, Yeh M, Lau A, Garland AF, Hough RL. Racial/ethnic differences in caregiver strain and perceived social support among parents of youth with emotional and behavioral problems. Mental Health Services Research. 2003; 5:137–147. [PubMed: 15224447]

McKay MM, McCadam K, Gonzales JJ. Addressing the barriers to mental health services for inner city children and their caretakers. Community Mental Health Journal. 1996a; 33:353–361. [PubMed: 8840078]

McKay MM, Nudelman R, McCadam K, Gonzales J. Involving inner-city families in mental health services: First interview engagement skills. Research on Social Work Practice. 1996b; 6:462–472.

McKay MM, Pennington J, Lynn CJ, McCadam K. Understanding urban child mental health service use: Two studies of child, family, and environmental correlates. Journal of Behavioral Health Services and Research. 2001; 28(4):475–483. [PubMed: 11732249]

McKay MM, Stoewe J, McCadam K, Gonzales J. Increasing access to child mental health services for urban children and their caretakers. Health and Social Work. 1998; 23:9–15. [PubMed: 9522199]

McMahon, RJ.; Wells, KC.; Kotler, JS. Conduct problems. In: Mash, EJ.; Barkley, RA., editors. Treatment of childhood disorders. 4th ed.. New York: Guilford Press; 2006. p. 137-270.

Mendel P, Meredith LS, Schoenbaum M, Sherbourne CD, Wells KB. Interventions in organizational and community context: A framework for building evidence on dissemination and implementation in health services research. Administration and Policy in Mental Health and Mental Health Services Research. 2008; 35:21–37. [PubMed: 17990095]

Merikangas KR, He J-P, Brody D, Fisher PW, Bourdon K, Koretz DS. Prevalence and treatment of mental disorders among U.S. children in the 2001–2004 NHANES. Pediatrics. 2010; 125:75–81. [PubMed: 20008426]

Merikangas KR, Nakamura EF, Kessler RC. Epidemiology of mental disorders in children and adolescents. Dialogues in Clinical Neuroscience. 2009; 11:7–20. [PubMed: 19432384]

Mitchell P. Evidence-based practice in real-world services for young people with complex needs: New opportunities suggested by recent implementation science. Children and Youth Services Review. 2011; 33:207–216.

Munson MR, Floresch JE, Townsend L. Attitudes toward mental health services and illness perceptions among adolescents with mood disorders. Child and Adolescent Social Work Journal. 2009; 26(5):447–466. [PubMed: 19834581]

Nakamura BJ, Higa-McMillan CK, Okamura KH, Shimabukuro S. Knowledge of and attitudes towards evidence-based practices in community childrens mental health practice. Administration and Policy in Mental Health and Mental Health Services Research. 2011; 38:287–300. [PubMed: 21499945]

Noser K, Bickman L. Quality indicators of children's mental health services: Do they predict improved client outcomes. Journal of Emotional and Behavioral Disorders. 2000; 8(1):9–18.

Patterson JE, Miller RB, Carnes S, Wilson S. Evidence-based practice for marriage and family therapists. Journal of Marital and Family Therapy. 2004; 30:183–195. [PubMed: 15114947]

Powell BJ, McMillen JC, Proctor EK, Carpenter CR, Griffey RT, Bunger AC, et al. A compilation of strategies for implementing clinical innovations in health and mental health. Medical Care Research and Review. 2012; 69(2):123–157. [PubMed: 22203646]

Pumariega AJ, Rogers K, Rothe E. Culturally competent systems of care for children's mental health services:Advances and challenges. Community Mental Health Journal. 2005; 41:539–555. [PubMed: 16142537]

Reid MJ, Webster-Stratton C, Beauchaine TP. Parent training in head start: A comparison of program response among African American, Asian American, Caucasian, and Hispanic mothers. Prevention Science. 2001; 2:209–227. [PubMed: 11833925]

Reimer M, Athay MM, Bickman L, Breda C, Kelley SD, Vides de Andrade AR. The Peabody treatment progress battery: History and methods for developing a comprehensive measurement battery for youth mental health. Administration and Policy in Mental Health. 2012; 39(1–2):3–12. [PubMed: 22421933]

Reyno SM, McGrath PJ. Predictors of parent training efficacy for child externalizing behavior problems—a meta-analytic review. Journal of Child Psychology and Psychiatry. 2006; 47:99–111. [PubMed: 16405646]

Robbins JM, Taylor JL, Rost KM, Burns BJ, Phillips SD, Burnam MA, et al. Measuring outcomes of care for adolescents with emotional and behavioral problems. Journal of the American Academy of Child and Adolescent Psychiatry. 2001; 40:315–324. [PubMed: 11288773]

Rogers SJ, Vismara LA. Evidence-based comprehensive treatments for early autism. Journal of Clinical Child and Adolescent Psychology. 2008; 37(1):8–38. [PubMed: 18444052]

Rotheram-Borus MJ, Swendeman D, Chorpita BF. Disruptive innovations for designing and diffusing evidence-based interventions. American Psychologist. 2012; 67:463–476. [PubMed: 22545596]

Rouse LW, Toprac MG, MacCabe NA. The development of a statewide continuous evaluation system for the Texas children's mental health plan: A total quality management approach. The Journal of Behavioral Health Services and Research. 1998; 25:194–207.

Rutherford BR, Mori S, Sneed JR, Pimontel MA, Roose SP. Contribution of spontaneous improvement to placebo response in depression: A meta-analytic review. Journal of Psychiatric Research. 2012; 46:697–702. [PubMed: 22410207]

Satcher DS. Executive summary: A report of the Surgeon General on mental health. Public Health Reports. 2000; 115:89–101. [PubMed: 10968589]

Sburlati ES, Schniering CA, Lyneham HJ, Rapee RM. A model of therapist competencies for the empirically supported cognitive behavioral treatment of child and adolescent anxiety and depressive disorders. Clinical Child and Family Psychology Review. 2011; 14(1):89–109. [PubMed: 21267654]

Scheyett A, McCarthy E, Rausch C. Consumer and family views on evidence-based practices and adult mental health services. Community Mental Health Journal. 2006; 42:243–257. [PubMed: 16532382]

Schoenwald SK, Chapman JE, Kelleher K, Hoagwood KE, Landsverk J, Stevens J, et al. A survey of the infrastructure for children's mental health services: Implications for the implementation of

empirically supported treatments (ESTs). Administration and Policy in Mental Health and Mental Health Services Research. 2008; 35:84–97. [PubMed: 18000750]

Schoenwald SK, Hoagwood KE, Atkins MS, Evans ME, Ringeisen H. Workforce development and the organization of work: The science we need. Administration and Policy in Mental Health. 2010; 37:71–80. [PubMed: 20145990]

Shimokawa K, Lambert MJ, Smart DW. Enhancing treatment outcome of patients at risk of treatment failure: Meta-analytic and mega-analytic review of a psychotherapy quality assurance system. Journal of Consulting and Clinical Psychology. 2010; 78:298–311. [PubMed: 20515206]

Shin SH, Brown TA. Racial and ethnic disparities in caregiver strain and the use of child mental health services: A structural equation model. Psychiatric Services. 2009; 60(8):1039–1045. [PubMed: 19648190]

Shirk, SR. The road to effective child psychological services: Treatment process and outcome research. In: Hughes, J.; LaGreca&, A.; Conoley, J., editors. Handbook of psychological services for children and adolescents. New York: Oxford University Press; 2001. p. 43-59.

Shumway M, Sentell T. An examination of leading mental health journals for evidence to inform evidence-based practice. Psychiatric Services. 2004; 55:649–653. [PubMed: 15175461]

Smith GR, Manderscheid RN, Flynn L, et al. Principles for measurement of patient outcomes in mental health care. Psychiatric Services. 1997; 48:1033–1036. [PubMed: 9255835]

Southam-Gerow MA, Weisz JR, Kendall PC. Youth with anxiety disorders in research and service clinics: Examining client differences and similarities. Journal of Clinical Child and Adolescent Psychology. 2003; 3:375–385. [PubMed: 12881026]

Stein BD, Kogan JN, Hutchison SL, Magee EA, Sorbero MJ. Use of outcomes information in child mental health treatment: Results from a pilot study. Psychiatric Services. 2010; 61:1211–1216. [PubMed: 21123405]

Stetler CB, Legro MW, Wallace CM, Bowman C, Guihan M, Hagedorn H, et al. The role of formative evaluation in implementation research and the QUERI experience. Journal of General Internal Medicine. 2006; 21:S1–S8. [PubMed: 16637954]

Stiffman AR, Stelk W, Horwitz SM, Evans ME, Outlaw FH, Atkins M. A public health approach to children's mental health services: Possible solutions to current service inadequacies. Administration and Policy in Mental Health. 2010; 37:120–134. [PubMed: 20039117]

Substance Abuse and Mental Health Services Administration. Mental Health, United States, 2010. HHS Publication No. (SMA) 12–4681. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2012.

Surgeon General. Report of the surgeon general's conference on children's mental health: A national action agenda. Washington, DC: US Department of Health and Human Services; 2000.

Timimi S, Tetley D, Burgoine W, Walker G. Outcome orientated child and adolescent mental health services (OO-CAMHS): A whole service model. Clinical Child Psychology and Psychiatry. 2012; 17(3):1–16.

Torrey WC, Bond GR, McHugo GJ, Swain K. Evidence-based practice implementation in community mental health settings: The relative importance of key domains of implementation activity. Administration and Policy in Mental Health and Mental Health Services Research. 2011

Trask EV, Garland AF. Are children improving? Results from outcome measurement in a large mental health system. Administration and Policy in Mental Health and Mental Health Services. 2011; 39:210–220.

Unutzer J, Chan Y, Hafer E, Knaster J, Shields A, Powers D, et al. Quality improvement with pay-for-performance incentives in integrated behavioral health care. American Journal of Public Health. 2012; 102:e41–e45. [PubMed: 22515849]

Walrath CM, Ybarra ML, Holden EW. Understanding the pre-referral factors associated with differential 6-month outcomes among children receiving system-of-care services. Psychological Services. 2006; 3:35–50.

Wampold, B. The great psychotherapy debate: Models, methods, and findings. Mahwah: Lawrence Erlbaum Associates Publishers; 2001.

Warren JS, Nelson PL, Burlingame GM. Identifying youth at risk for treatment failure in outpatient community mental health services. Journal of Child and Family Studies. 2009; 18:690–701.

Warren JS, Nelson PL, Burlingame GM, Mondragon SA. Predicting patient deterioration in youth mental health services: Community mental health vs. managed care settings. Journal of Clinical Psychology. 2012; 68:24–40. [PubMed: 21989865]

Warren JS, Nelson PL, Mondragon SA, Baldwin SA, Burlingame GM. Youth psychotherapy change trajectories and outcomes in usual care: Community mental health versus managed care settings. Journal of Consulting and Clinical Psychology. 2010; 78:144–155. [PubMed: 20350026]

Weersing VR, Iyengar S, Kolko DJ, Birmaher B, Brent DA. Effectiveness of cognitive-behavioral therapy for adolescent depression: A benchmarking investigation. Behavior Therapy. 2006; 37:36–48. [PubMed: 16942959]

Weersing VR, Weisz JR. Community clinic treatment of depressed youth: Benchmarking usual care against CBT clinical trials. Journal of Consulting and Clinical Psychology. 2002; 70:299–310. [PubMed: 11952188]

Weersing VR, Weisz JR, Donenberg JR. Development of the therapy procedures checklist: A therapist-report measure of technique use in child and adolescent treatment. Journal of Clinical Child and Adolescent Psychology. 2002; 31:168–180. [PubMed: 12056101]

Weiss B, Catron T, Harris V, Phung TM. The effectiveness of traditional child psychotherapy. Journal of Consulting and Clinical Psychology. 1999; 67:82–94. [PubMed: 10028212]

Weissman MM, Verdeli H, Gameroff MJ. National survey of psychotherapy training in psychiatry, psychology, and social work. Archives of General Psychiatry. 2006; 63(8):925–934. [PubMed: 16894069]

Weisz, JR. Psychotherapy for children and adolescents: Evidence-based treatments and case examples. Cambridge: Cambridge University Press; 2004.

Weisz JR, Chorpita BF, Frye A, Ng MY, Lau N, Bearman SK, et al. Youth top problems: Using idiographic, consumer-guided assessment to identify treatment needs and to track change during psychotherapy. Journal of Consulting and Clinical Psychology. 2011; 79(3):369–380. [PubMed: 21500888]

Weisz JR, Chorpita BF, Palinkas L, Schoenwald SK, Miranda J, Bearman SK, et al. Testing standard and modular designs for psychotherapy treatment for depression, anxiety, and conduct problems in youth: A randomized effectiveness trial. Archives of General Psychiatry. 2012; 69:274–282. [PubMed: 22065252]

Weisz JR, Jensen-Doss A, &Hawley KM. Evidence-based youth psychotherapies versus usual clinical care: A meta-analysis of direct comparisons. American Psychologist. 2006; 61:671–689. [PubMed: 17032068]

Westfall JM, Mold J, Fagnan L. Practice-based research—''blue highways'' on the NIH roadmap. The Journal of the American Medical Association. 2007; 297:403–406.

Wilczynski, SM.; Russo, DC.; Christian, WP. Evidence-based practice and autism: Building systematic capacity based on the national standards project. In: McHugh, RK.; Barlow, DH., editors. Dissemination and implementation of evidence-based psychological interventions. New York: Oxford University Press; 2012.

Zima BT, Hurlburt MS, Knapp P, Ladd H, Tang L, Duan N, et al. Quality of publicly-funded outpatient specialty mental health care for common childhood psychiatric disorders in California. Journal of the American Academy of Child and Adolescent Psychiatry. 2005; 44:130–144. [PubMed: 15689726]
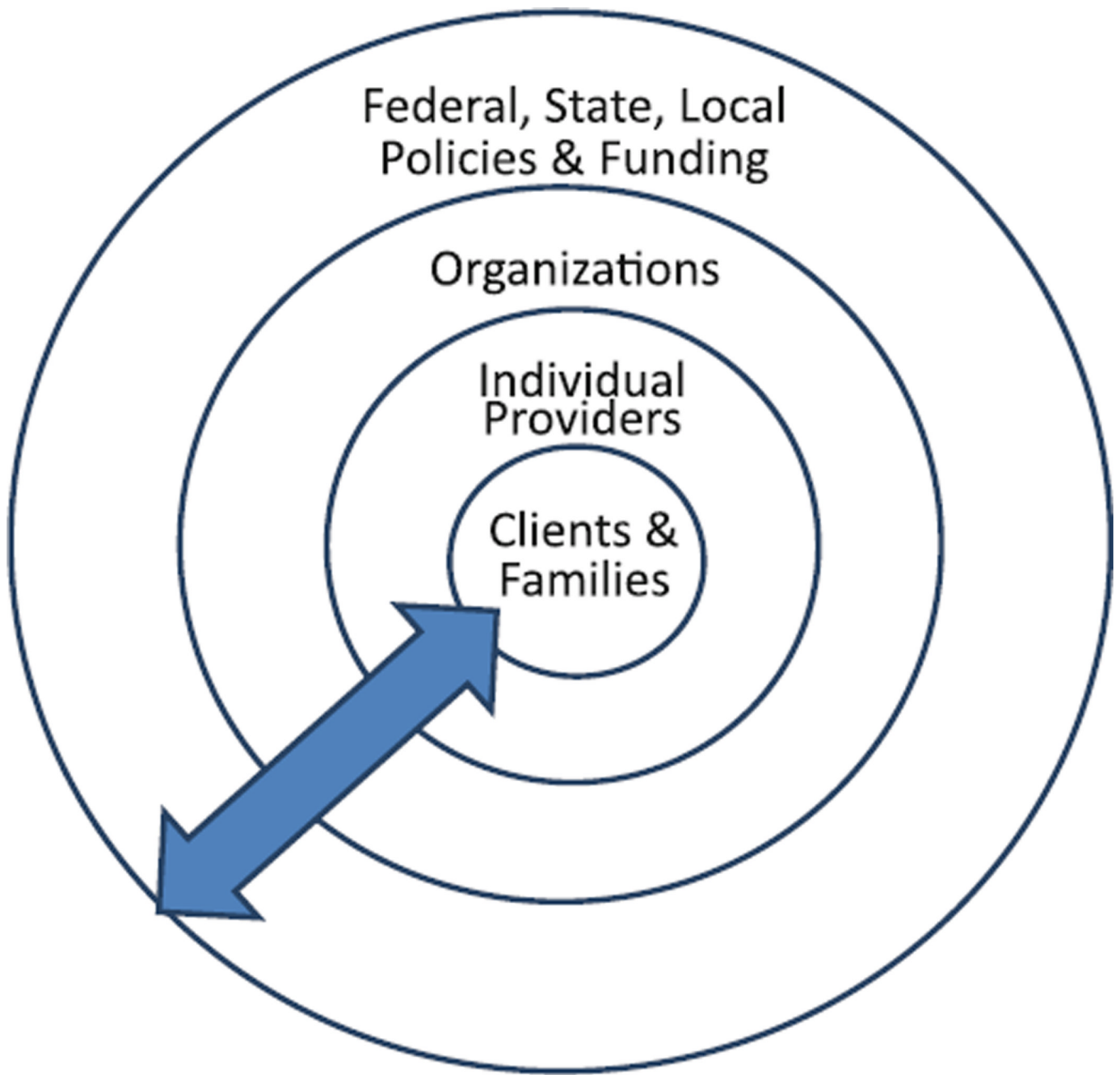
Fig. 1.
Context for Usual Care Services

Table 1

Care Improvement Targets for Children's Mental Health Care Across Intervention Levels

Level of intervention	Care improvement targets		
	Service access and engagement	Delivery of evidence-based practices	Outcome accountability
Federal and state policy or funding	Expand coverage for behavioral health services and coordinate across service sectors	Incentivize EB practice and support training and infrastructure development	Build incentives for outcome accountability
Provider organizations	Support integration of mental health and primary care services and outreach to under-served communities	Build/reinforce sustainable infrastructure for EB practices, including optimal organizational culture and climate and secured time for training/supervision	Utilize measurement feedback systems (MFS) to assess treatment processes, client outcomes, and costs
Individual providers	Train on EB engagement strategies, with attention to cultural sensitivity	Provide effective training in EB practices (assessment and treatment) that provides ongoing consultation/supervision	Train on collection and use of MFS outcome data in clinical care
Client/family	Train and support family advocates/peer educators; reduce stigma; empower consumers to engage providers; teach self-advocacy	Educate consumers regarding EB practices and expectations and encourage consumer activation	Educate consumers regarding differential quality in providers and value of outcome monitoring