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The Theory of Planned Behavior Applied to Consumer Engagement in Evidence-Based Services

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Abstract

Objectives Despite extensive research supporting the efficacy of certain youth mental health treatments over others, actual use of these interventions in clinical practice continues to be low. Efforts focused on the dissemination and implementation of evidence-based services (EBS) may be aided by utilization of the theory of planned behavior (TPB) to explore behavioral change related to parents' treatment-related decision-making.

Methods The current study describes the investigation of consumer perspectives on EBS within a TPB framework through a content validation process (interviews with caregivers, theme generation through template analysis, item modification and evaluation) that sought collaboration with multiple stakeholders (caregivers, a university panel, mental health workers, parent advocates) for connecting research with practice.

Results Such detailed efforts resulted in the development of the Parent Engagement in Evidence-Based Services (PEEBS) survey questionnaire, consisting of 66 consumer-centric statements that were guided by the TPB and evidenced adequate language appropriateness, content validity, and readability scores. Survey items organized into five domains both consistent with (attitudes, perceived behavioral control, subjective norms, behavioral intention) the TPB in addition to general treatment factors that parents cited towards seeking EBS. Pilot data from a small sample ($n = 30$) of parents indicated preliminary and acceptable feasibility, interpretability, and varying levels of internal consistency for the PEEBS.

Conclusions Following the development and refinement of items, future studies focused on the psychometric properties of the measure are warranted.

Keywords Evidence-based services · Consumer-centered · Youth mental health · Dissemination · Implementation

Over the past 20 years, there have been major gains in the identification of efficacious psychosocial interventions for children and adolescents with mental health problems (Silverman and Hinshaw 2008; Substance Abuse and Mental Health Services Administration 2008). Despite such progress, these treatments are not widely utilized in usual care (Horwitz et al. 2010; Raghavan et al. 2010). As a result, the field of dissemination and implementation science regarding youth evidence-based services (EBS) has

grown substantially over the last decade (Becker et al. 2009; Chorpita and Regan 2009). Significant resources have been allocated at the national, state, and subsidiary levels to diminish the gap between science and practice by promoting greater utilization of these research-supported practices. Most of these efforts, and the associated research, have targeted clinical providers and the larger service systems in which they are embedded (McHugh and Barlow 2010). However, there continues to be low levels of EBS utilization in both clinical (e.g., Higa-McMillan et al. 2017; Reid et al. 2018) and training settings (e.g., Weissman et al. 2006), suggesting that a complementary approach is warranted.

One promising, yet often ignored, supplementary strategy is to borrow from the field of marketing science and target recipients of EBS ("consumers") to increase their demand for such services by better responding to their needs, desires, and concerns (Sanders 2008; Santucci et al. 2012). This consumer-centered approach is constructive for multiple reasons, as it serves to (a) increase awareness of the

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existence of efficacious psychosocial treatments, (b) improve understanding of psychological services resulting in decreased stigma and misperceptions about mental health (Friedberg and Bayar 2017), (c) increase the demand for clinicians who are trained in EBS (Santucci et al. 2012), (d) measure and improve EBS implementation outcomes guided by consumers regarding acceptability and appropriateness (Proctor et al. 2009, 2011), and (e) inform treatment developers with user feedback about the extent to which EBS are working or being accepted in local settings (Stirman et al. 2004).

In children's mental health, the consumer unit includes not only the youth, but also family members and those providing care for the child (henceforth referred to as "caregivers"). That said, studies have found that caregivers generally lack accurate knowledge regarding treatment of children's mental health problems (Dodangi et al. 2017; Lazaratou et al. 2007), and are often unaware of the role of mental health professionals (Richardson 2001). Furthermore, only a small percentage of youth clients and their families receive EBS (Sanders et al. 2007) are aware of the existence of such interventions (Tanenbaum 2008; Tully et al. 2017), and hold misperceptions regarding evidence-based practices (Becker et al. 2016b).

There is clear evidence to suggest that providing more information to caregivers regarding available interventions has important benefits. Increased knowledge about what to expect in treatment can (a) foster a sense of empowerment, (b) lead to demands for improved quality of care and accountability (Gruttadaro et al. 2007), (c) increase transparency, (d) inform decision-making, (e) minimize disagreements, and (f) set realistic expectations for therapy (Hamilton 2004). Higher caregiver knowledge of efficacious treatments for youth is also associated with greater acceptability (Bennet et al. 1996) and higher likelihood of enrolling in EBS (Johnston et al. 2005; Yeh et al. 2014). Subsequently, research in evidence-based parenting interventions has begun to reflect such benefits of direct collaboration, including improved quality of interventions and enhanced outcomes for consumers (Frank et al. 2015; Sanders and Kirby 2012).

Accordingly, there is a growing recognition that caregivers should be more involved in the design and dissemination of EBS (Flynn 2005; Hoagwood 2005). Caregiver consumers can provide researchers and clinicians valuable information regarding factors that influence their treatment decisions (e.g., Aarons et al. 2009; Becker et al. 2018a). For example, some research suggests that caregiver consumers strongly prefer research-based programs over types that are not (Goodday et al. 2014; Spoth and Redmond 1993) and value intervention options supported by therapist recommendations (Cunningham et al. 2015). The consideration of such consumer-centered perspectives into

dissemination and implementation efforts might positively influence caregiver demand for EBS, thereby extending their overall reach.

Innovative direct-to-consumer approaches are already underway, including the involvement of consumers in designing psychosocial interventions (e.g., Sanders and Kirby 2012) and marketing services promoting EBS via mass, buzz, or social media (e.g., websites; Okamura et al. 2018; Tully et al. 2018). However, a simultaneous and foundational step involves exploring consumer-related experiences, perspectives, and behaviors as they relate to engagement in EBS. To achieve this step, the field needs to methodologically investigate caregiver engagement in response to consumer support programs like the ones mentioned above.

Several well-studied theories have sought to explain health-related behavior (e.g., social learning theory and the diffusion of innovation theory; Bandura 1986; Rogers 1995) and thus hold promise as launching points for understanding caregiver behaviors concerning EBS. In the field of social psychology, the theory of planned behavior (TPB; Ajzen 1988, 1991) is considered the most extensively researched theory of behavior change and has successfully predicted a range of health behaviors including dieting, physical exercise, cancer self-examinations, sunscreen use, condom use, smoking, binge drinking, and automobile speeding, among others (Armitage and Conner 2001; Godin and Kok 1996). The TPB posits that *behavioral intentions* capture the motivational factors that influence behavior and can be used as proximal and predictive measures of the behavior itself (e.g., Godin and Kok 1996). The three predictors that interact to influence behavioral intention are *attitudes*, *subjective norms*, and *perceived behavioral control*. Attitudes refer to the degree to which a person has a favorable or unfavorable appraisal of the behavior of interest. Subjective norms are defined as perceived social pressure to perform the behavior. The final predictor, perceived behavioral control, refers to a person's perceived ease or difficulty of performing the behavior of interest (Ajzen 1988, 1991). Meta-analyses have demonstrated that intentions can be predicted with considerable accuracy from measures of attitudes toward the behavior (mean correlations ranging from 0.45 to 0.60), perceived behavioral control (mean correlations ranging from 0.35 to 0.46), and subjective norms (mean correlations ranging from 0.32 to 0.42; Ajzen and Cote 2008).

Research on the application of the TPB to help-seeking behavior in adult mental health samples [e.g., with prison inmates (Smith et al. 2008), males seeking help for emotional problems and suicidality (Skogstad et al. 2006), college students (Vogel et al. 2005)] suggests the strong potential for better understanding utilization of EBS in youth mental health. In particular, the TPB has been used to

examine attitudes of parents seeking help for their children (e.g., Turner 2012) and explore child mental health provider and other stakeholders' perspectives about engaging in EBS (e.g., Burgess et al. 2017). Thus when investigating caregiver consumer preferences in the context of the TPB, it is suggested that a caregiver-centered construct, intent to engage in EBS, might serve as a proxy for the actual behavior of obtaining EBS for their children. From a theoretical perspective, this intent construct might also be predicted by the three variables of behavioral intention. For example, raising expectations regarding the benefits of EBS (attitudes), reducing obstacles constraining the belief that one could obtain EBS successfully (perceived behavioral control), and/or mobilizing the normative influences of therapist recommendations (subjective norms) might enhance consumers' behavioral intentions to seek out EBS.

Evaluating these factors in caregiver consumers has the potential for numerous practical implications. Clinicians who are proponents of EBS might be able to better understand caregiver consumers' attitudes towards EBS and subsequently nuance services to address those attitudes effectively. Research on constructs such as caregivers' perceived behavioral control might also be utilized to inform and tailor media campaigns to promote dissemination and implementation efforts within caregiver consumer populations.

There is currently a lack of theoretically-driven assessment endeavors aimed at understanding the caregiver consumer perspective for seeking EBS for youth clients. Although there are existing measures aimed at examining help-seeking for caregivers of youth with mental health concerns (e.g., Parental Attitudes Toward Psychological Services Inventory (PATPSI; Turner 2012); Family Empowerment Scale (FES; Koren et al. 1992), they primarily focus on general mental health services or lower order constructs of attitudes, knowledge and behaviors (under the superordinate variable of empowerment) regarding their children's behavioral health.

More recently, the Consumer Attitudes towards Evidence-Based Services scale (CAEBS; Teh and Mueller 2011) was developed to assess general EBS attitudes for adult consumers hypothetically seeking mental health services for themselves or a loved one. Through an investigation using a large university undergraduate sample, Teh et al. (2016) discovered consumers' attitudes towards EBS to be shaped by four factors: beliefs regarding therapists' practices, attitudes about mental health policy, negative personal-level attitudes towards evidence-based practices, and negative societal-level attitudes towards evidence-based services. Despite strong potential utility with adult populations seeking services for either themselves or loved ones, the CAEBS is not based on the TPB, a robust theory of behavioral intentions, and does not center squarely on

caregiver consumer perspectives. Unlike adult consumers seeking treatment for themselves, caregivers seeking help on behalf of their children are influenced by their own perceptions and knowledge of child mental health problems, availability of services for youth, caregivers' perceived ability to cope, and possible negative consequences of help-seeking for their child (e.g., stigma, feeling blamed, child being labeled with a diagnosis or being removed from the family; Sayal et al. 2010; Turner 2012). Additionally the CAEBS was developed through a brainstorming process of a small group of researchers, focusing on only one broader dimension of consumer characteristics underlying behavior (namely attitudes). In conclusion, there remains a need for a consumer-centered instrument that specifically targets caregivers of youth with mental health concerns and is guided by a well-validated theory of help-seeking behavior.

The following three studies were designed to survey caregivers' intentions for engaging in youth EBS within a TPB framework. Building on the CAEBS research (Teh and Mueller 2011; Teh et al. 2016), Study 1 explores themes within the TPB with caregivers in order to examine their behavioral intentions to engage in EBS for their children. Study 2 assesses the content validity of the newly created survey via collaborative efforts with relevant stakeholders (i.e., parent advocates, case managers, clinicians, university panels). In Study 3, we report preliminary findings from a sample of caregivers and describe results related to feasibility, and initial interpretability and reliability of the measure. As a whole, these studies serve as examples of efforts to leverage caregiver consumer perspectives while conforming to scientific principles, in order to begin development of an instrument assessing caregiver's attitudes towards EBS. It is hoped that a focus on caregiver views will ultimately provide information to assist in the wider dissemination and implementation of these efficacious treatments for youth.

Study 1

Study 1 involved the exploration of TPB-related themes with caregivers and the development of an item pool based on suggested content validation techniques (Haynes et al. 1995) for generating items including: (a) items from other relevant assessment measures (i.e., CAEBS; Teh and Mueller 2011), (b) interviews with members of the target population of caregivers, and (c) recruitment of a university panel of members with clinical experience working with youth and their families and knowledge of theories and literature relevant to caregiver engagement in EBS. This first study is divided into two stages labeled: Stage 1: Theme generation and Stage 2: Preliminary content validation.

Participants

In order to gain caregiver consumer perspectives, 12 caregiver participants (92% female) of youth with emotional or behavioral problems were recruited for one-to-one interviews through the University of Hawai'i Center for Cognitive Behavior Therapy (a university-based research, training, and service center) and the Honolulu Family Guidance Center (one of the state's eight regional public health centers) of the Department of Health, Child and Adolescent Mental Health Division (the statewide public agency responsible for providing youth public mental health services). Caregiver participants were referred to these agencies through the Hawai'i State Department of Education, Child and Adolescent Mental Health Division, or through private referrals for mental health services, and were defined as caregivers of youth experiencing emotional or behavioral problems that were either in the initial process of obtaining services or currently receiving treatment from various public-sector organizations. Child and adolescent clients of these caregivers were 50% male ($n = 6$); ranged in age from 7 to 17 years old ($M = 12.2$; $SD = 3.6$); had primary diagnoses related to internalizing ($n = 4$), externalizing ($n = 6$), or both internalizing and externalizing ($n = 2$) problems; and were either receiving treatment through the Department of Education ($n = 4$), Child and Adolescent Mental Health Division ($n = 5$), or not receiving services ($n = 3$). To aid in the overall content validation process, a five-person university panel was recruited from the University of Hawai'i at Mānoa based on research interests, experience with children with mental health problems, and knowledge of child and adolescent EBS and dissemination and implementation science. These university panel members were either graduate students or held a doctoral-level degree in clinical psychology (See Table 1 for a description of participants across studies).

Procedure

Stage 1: Theme generation

Given the suggested utility of the CAEBS (Teh and Mueller 2011) measure when exploring adult consumer attitudes towards EBS, these 29 items served as the foundation of the item pool. In order to increase the likelihood of obtaining themes representative of and relevant to the construct of caregivers' intent to engage in EBS, semi-structured interviews were also conducted with participants from the targeted population (Haynes et al. 1995). Caregiver participants met in person with the primary investigator for a 30-minute, one-to-one administration of the Theme Generation Interview. Additional interviews were held until the point of data saturation, when three respondents in a row failed to produce novel themes (Francis et al. 2010).

Table 1 Study procedures across parent engagement in evidence-based services (PEEBS) questionnaire development

Stage description	Participants	Format	Analytic strategy	Resulting number of PEEBS items
Study 1: Theme generation				
Stage 1: Theme generation	$N = 12$ caregivers (Female = 92%)	Theme generation interview	Template analysis, grounded theory and coding for themes	283
Study 2: Content validation				
Stage 2: Preliminary content validation	$N = 5$ university panel members (4 graduate students, 1 Ph.D.)	Discussion panel	Systematic review of the domains, subdomains and items	105
Stage 1: Item modification	$N = 8$ (2 mental health workers, 2 school mental health workers, 2 parent advocates, 2 university panel members)	Item modification forms	Modification of items for caregiver appropriateness	243
Stage 2: Item evaluation	$N = 8$ (2 mental health workers, 2 school mental health workers, 2 parent advocates, 2 university panel members)	Item evaluation forms	Ratings of language appropriateness and content validity	82
Stage 3: Content validation review	University panel	Discussion panel	Further refinement of domains, subdomains and items	66

The primary investigator and a clinical psychology doctoral candidate each examined a subset of the transcript data and collaboratively defined themes from quotes based on the intent of the study. Following the completion of interviews, the primary investigator and an additional coder then independently reviewed the full set of transcripts, coding all sections of the text for key spoken moments or "utterances" to (a) index them as relating to one of the template themes, and (b) identify any additional themes. As a final step, preliminary items were generated from the themes.

Stage 2: Preliminary content validation

The preliminary content validation process entailed revision of the working thematic template through several meetings with the primary investigator and university panel (4 graduate students and one Ph.D. level expert). Along with clarifying and creating definitions for domains, the university panel worked to establish a final pool of items for a working draft of this preliminary survey.

Measures

Theme generation interview

The Theme Generation Interview was developed for the purpose of this study and guided by a manual developed by Francis et al. (2004) for constructing questionnaires based on the TPB (González et al. 2012; Knowlden et al. 2012). First, caregivers' knowledge of EBS was assessed to identify the number of interviewees that were aware of these types of interventions prior to discussing their specific views on EBS. Subsequently, the construct of EBS was described to caregivers to both facilitate the interview process and provide them a basis on which to form their responses to the Theme Generation Interview questions. In order to explore whether other themes unrelated to the TPB were influential in caregivers' treatment decision-making, open-ended queries regarding caregivers' perception of their role in obtaining mental health services, history of seeking or receiving services, and general factors influencing supports they would choose for their child were also added. The remaining open-ended questions elicited responses related to attitudes (e.g., "What do you believe is good/bad about EBS?"), perceived behavioral control (e.g., "What kind of things would help/make it difficult for you to seek EBS for your child?"), and subjective norms (e.g., "Are there any people or groups who would approve/disapprove of your decision to seek EBS?"). The Theme Generation Interview was reviewed by the university panel prior to administration in an effort to minimize the chance of interviewer bias, and all questions were subjected to the Flesch-Kincaid Grade Level Test to assess readability (score = 4.7 grade level).

Data Analyses

Caregiver participant responses were explored using template analysis (King 1998) in order to identify shared themes among participants. Template analysis is considered a flexible approach to coding qualitative data, employing methodology that falls between content analysis (Weber 1985), where codes are predetermined and statistically analyzed, grounded in theory (Glaser and Strauss 1967), and not defined a priori. In template analysis, (a) some themes are determined a priori based on previous literature and hypotheses in order to guide analysis, (b) themes are modified and added to by the researcher as text is read and interpreted, and (c) themes are organized into a coding template (King 1998).

Results

In order to code the content from the 12 transcribed caregiver interviews in Stage 1, coding templates initially focused on the three TPB predictors of behavioral intention: attitudes (e.g., "I do think that the world view of mental illness is very westernized and so… that is sort of one of the draw backs of the evidence-based is that I think it doesn't really take into account more of the cultural point"), perceived behavioral control (e.g., "The therapist is failing to educate. That's not the parent's job to ask. I mean it's not a student's job to ask a teacher a question; it's the teacher's job to teach the student, and then if the student has any questions, give them the chance to answer. But how is a student going to ask a question about something they know nothing about? First, they have to be presented with the subject matter and then they can ask a question"), and subjective norms (e.g., "Usually my base decision is through people that I know—referrals, because they've been through it, they've did it, and usually people that refer you are honest about referrals").

Following the coding of themes, multiple discussions ensued amongst the university panel to clarify domains (attitudes, perceived behavioral control, subjective norms) and subdomains based on the themes listed within each category (see Supplementary Materials). Throughout interviews, caregivers identified themes that did not clearly align with any of the TPB predictors. Thus, a general treatment factors domain was included in addition to the constructs of the TPB. This domain describes various aspects of the treatment process that are not specifically related to EBS, but nonetheless influence caregivers' treatment related decisions (i.e., treatment location, rapport with therapist).

All 12 caregiver participants mentioned issues associated with these four domains. The domains of perceived behavioral control and attitudes were mentioned most frequently (145 and 121 utterances, respectively), while the general treatment factor and subjective norms domains were discussed less often (99 and 82 utterances, respectively; see Supplementary Materials). Two of the four domains contained several subdomains, suggesting greater complexity of these two larger constructs within the context of youth EBS with caregivers. The perceived behavioral control domain consisted of six subdomains of facilitators: therapist adoption (e.g., "My child's therapist should make sure I understand the type of treatment she provides"); barriers: lack of knowledge, skill or experience (e.g., "I do not know enough about researched treatments to form an opinion about them"); lack of confidence or control (e.g., "I would feel comfortable asking my child's therapist to use treatments based on research"); perceptions of cost (e.g., "Treatments based on research cost more than other treatments"); consumer empowerment (e.g., "I have the right to decide whether researched treatments are used in my child's session"); and school role (e.g., "My child's school should be required to help me access researched treatments"). The attitudes domain included the three subdomains of fit and compatibility (e.g., "Treatments supported by research do not fit my culture"), advantages and disadvantages of EBS (e.g., "Treatments with low levels of support may still be effective for my child"), and trust in research (e.g., "Treatments supported by research have a history of working well"). These findings suggest that from a caregiver's perspective, there are a multiplicity of factors that affect their ease or difficulty for obtaining and engaging in youth EBS.

Following the clarification of domains, the university panel then worked to establish well-formed items, combine items with similar concepts to reduce redundancy, delete irrelevant or low base-rate items (e.g., case specific issues that would likely not generalize to other caregivers), create construct definitions for each domain, and ensure all domains were adequately covered. Additionally, as suggested by Francis et al. (2004) manual, a fifth domain of behavioral intention was created and comprised of three items that directly measure generalized intention (e.g., "I intend to seek out EBS for the treatment of my child's problems"). At the end of Study 1, 76 items generated through interviews with caregiver participants were added to the original list of 29 CAEBS items, for a combined 105 items brought forward to the next study.

Study 2

A thorough investigation of consumer perspectives on EBS yielded a complex understanding of the associated TPB constructs. Items developed from this exploration were then evaluated in Study 2, which sought expertise from various stakeholders in youth mental health to assess their content validity (Haynes et al. 1995). In continuation of the previous study, the stages of Study 2 are labeled: Stage 1: Item modification and Stage 2: Item evaluation, and Stage 3: Content validation review.

Participants

To gain the perspectives of a wide variety of youth mental health stakeholders, four types of participants were recruited (see Table 1). Mental health workers (i.e., staff that coordinate or provide youth mental health services) were included to gain their perspective on common issues and concerns that arise when helping caregivers navigate treatment related decisions within the context of a large public sector youth mental health system. School mental health workers (i.e., service providers or support workers for children receiving mental health services primarily in the school setting) were included to capture the perspective of behavioral health stakeholders within an educationally-driven context. To gain further insight into caregiver concerns above and beyond caregiver participants, parent advocates from Hawai'i Families As Allies (the Hawai'i state chapter of the National Federation of Families for Children's Mental Health) and the Special Parent Information Network (a parent networking organization) were approached as a result of their reputations for supporting, advocating for, and providing resources to caregivers of youth with mental health conditions. Finally, university panel members described in Study 1 were asked to participate in Study 2.

Procedure

Stage 1: Item modification

Eight participants (two mental health workers, two school mental health workers, two parent advocates, and two university panel members) were recruited to adapt and modify all 105 items for appropriate use with a caregiver population. Although measure content was generated by caregivers, actual items were worded by the research team after which participants were subsequently tasked with qualitatively evaluating items (e.g., suggesting additions or rewording items) to maintain meaning of the original items. Participants were also given the opportunity to suggest additional items if they felt there were topics not included in their item set that might influence caregivers' intent to seek EBS based on their attitudes, perceived behavioral control, subjective norms, general treatment factors, or any other domain not mentioned.

Stage 2: Item evaluation

Eight new participants (see Table 1) were recruited to rate all modified items on two dimensions: content validity (i.e., degree to which the item measures or is relevant to caregivers' intent to engage in EBS) and language appropriateness (i.e., appropriate for a caregiver population in wording and clarity; $1 = inappropriate$, $2 = slightly\ inappropriate$, $3 = appropriate$, $4 = very\ appropriate$). A definition of each domain was provided to participants in order for them to evaluate the content validity of statements on a scale from 1–5 ($1 = poor$, $2 = fair$, $3 = average$, $4 = good$, $5 = excellent$). In order to address the representativeness of items, participants were also given the opportunity to add items to the pool to capture important ideas not mentioned within a given domain. Lastly, the primary investigator met with the university panel consulted in the first study to finalize the measure items, domains, instructions and formatting.

Data Analyses

In Stage 1, the 105 items were each modified by three participants resulting in up to three variations of each item. Following this procedure, a total of 243 items were indicated. In Stage 2, each item received four content validity and four language appropriateness scores by four different evaluation participants. Items were then distilled using the following methods. First, for each unique item (including the original item and up to three reworded versions provided by modification participants), the version with the highest language appropriateness score was retained for further evaluation. This resulted in the reduction of items from 243 to 109. Second, the remaining 109 items were rank ordered by their content validity scores within their subdomains and the bottom quartile was eliminated to further reduce the items from 109 to 82.

Next, the university panel worked to refine the items and ensure that all domains and subdomains contained items best matched to their represented constructs. Based on suggestions from Clark and Watson's (1995) steps to objective scale development, the panel also evaluated each item to ensure that items were simple, concise, reflected a single idea, and received adequate readability scores (Flesch-Kincaid Grade Level Test average score across all items = 6.8 grade level).

Results

After a consensus was reached on the appropriateness of the items and domain fit, a final measure was produced containing 66 items within five domains: 13 attitudes, 32

perceived behavioral control, nine subjective norms, nine general treatment factors, and three behavioral intention (see Supplementary Materials). The five-point Likert-scale (i.e., with one indicating "strongly disagree" to five indicating "strongly agree") was used, and the sequencing of the 66 items was randomized to control for order effects. This preliminary measure of caregivers' intent to engage in EBS was named the Parent Engagement in Evidence-Based Services questionnaire (PEEBS; link for the current measure http://helpyourkeiki.com/wp-content/uploads/2018/03/PEEBS-2014.3.7.pdf). Although the term "parent" is used in the title of the measure, we are referring to a wide variety of child and adolescent caregivers, including but not limited to, biological parents, adoptive parents, and caretaking family members or friends such as grandparents.

Study 3

Building upon the first two studies, there are several efforts presently underway to advance the development of the PEEBS towards traditional psychometric evaluations (e.g., factor analysis, reliability and validity). Data collection is currently being conducted in several public schools in the state of Hawai'i to be used in a psychometric study of the PEEBS using caregivers, with data from one pilot school being presented here. Study 3 aims to use the pilot data from this small sample of caregivers to discuss preliminary findings related to the PEEBS' feasibility, and initial interpretation of scores and internal consistency.

Participants

36 caregivers of students from a public elementary school in Honolulu, Hawai'i were included in this study. Demographic characteristics of the sample are provided in Table 2.

Procedure

Caregivers were invited at the beginning of a Parent Student Teacher Association movie night to participate in a pilot study of a new measure examining caregiver views towards youth mental health EBS. This selected school was involved in a two-year partnership with the authorship team to provide a multi-tiered model of mental health services and support. Of the 70 caregivers in attendance, 36 (51%) chose to participate and 30 correctly filled out the informed consent form and completed the PEEBS measure.

Data Analyses

Data from the 30 participants were used to analyze descriptive statistics (e.g., means, standard deviations of scales, missing data analysis) lending to the overall

interpretation of scores and feasibility of measure administration. Internal consistency for each PEEBS scale was explored by examining Cronbach's alpha coefficients, and George and Mallery's (2003) guidelines were used to interpret alpha values: "≥0.9—Excellent, ≥0.8—Good, ≥0.7—Acceptable, ≥0.6—Questionable, ≥0.5—Poor, and <0.5—Unacceptable" (p. 231).

Results

Cronbach's alpha was computed for each of the five PEEBS scales (see Table 3). Internal consistency for perceived behavioral control, subjective norms, and behavioral intention was near acceptable to good (George and Mallery 2003) ranging from $\alpha = 0.68$ to 0.81; and unacceptable for attitudes and general treatment factors ($\alpha = 0.34$ and 0.05, respectively). When examining within PEEBS bivariate correlations for the scales with acceptable internal consistency, there was a significant positive correlation between

the perceived behavioral control and behavioral intention scales ($r = 0.68$, $p < 0.01$), which is consistent with and even higher than correlations generally reported in the literature (Ajzen and Cote 2008; Armitage and Conner 2001).

A total of 27 participants (90%) out of 30 were able to complete the PEEBS in its entirety, suggesting acceptable feasibility of the measure. Upon closer examination of the missing data by scale, perceived behavioral control had the most missing data ($n = 23$, 76.7% of participants had completed all items for this scale; the number of missing items ranged from one to three for the seven participants with one or more missing items), which could be expected given the relatively higher number of items within this scale (32 items). Behavioral intention had the highest completion rate ($n = 28$, 93.3% of participants had completed all items for this scale; two participants with missing data each did not complete one item), which could be attributed to having the least number of questions (3 items) and the straightforward nature of the items (e.g., intending to engage in EBS or not). Given the high overall completion rate, these results preliminarily suggest the PEEBS is amenable to caregivers completing the measure in its entirety.

Finally, to aid in the overall interpretation of scores, average scale means and standard deviations were examined. Behavioral intention had the highest average endorsement rate ($M = 3.83$, $SD = 0.73$), indicating that caregivers generally have high intentions to engage in EBS. General treatment factors had the lowest average endorsement ($M = 2.89$, $SD = 0.32$), suggesting caregivers tended to more often disagree with the importance of content related to general aspects of treatment as compared to EBS-focused items. See Table 3 for all scale descriptive data including means, standard deviations, alpha correlation coefficients, and Likert anchor descriptions.

Discussion

The studies reported in this article sought to both develop and evaluate content validity for a survey assessing

Table 2 Demographic characteristics of caregivers in study 3 ($N = 30$)

Characteristic	n (%)
Mean age	40.53 (SD = 6.77)
Male	11 (36)
Ethnicity	
Asian	27 (90)
Native Hawaiian/Other Pacific Islander	7 (23)
Black/African American	1 (3)
Hispanic/Latino	1 (3)
White	5 (17)
Heard of the term "evidence-based services"	
Yes	12 (40)
No	18 (60)
Number of children	
1	9 (30)
2	7 (60)
3	4 (10)

Participants were allowed to indicate more than one response within Ethnicity

Table 3 Study 3 scale means, standard deviations, and internal consistency

PEEBS scale	k	n (%)	Total scale mean (SD)	Ave scale mean (SD)	Cronbach's alpha
Attitudes	13	27 (90%)	42.4 (3.89)	3.26 (0.30)	0.34
Perceived behavioral control	32	23 (77%)	121 (9.31)	3.78 (0.29)	0.77
Subjective norms	9	27 (90%)	33.8 (4.44)	3.75 (0.49)	0.81
Behavioral intention	3	28 (93%)	11.5 (2.19)	3.83 (0.73)	0.68
General treatment factors	9	27 (90%)	26.0 (2.84)	2.89 (0.32)	0.05

Items are rated on a Likert scale where 1 = *Strongly disagree*, 2 = *Disagree*, 3 = *Neutral*, 4 = *Agree* and 5 = *Strongly agree*

k number of items, *Ave* Average

caregivers' intent to engage in evidence-based mental health services for their children, while also providing preliminary data from a pilot study with caregivers. The resulting instrument, the PEEBS, consists of 66 items and is based on a review of the literature, an existing consumer attitudes measure, interviews with caregivers, and input from participants across several disciplines working in child and adolescent mental health. Findings from a pilot study with 30 caregivers also indicated good feasibility and interpretability of the overall measure, with varying levels of scale reliability (Cronbach's alpha coefficients ranging from 0.05 to 0.81). While the majority of dissemination and implementation efforts have focused on clinical providers as the relevant target group, this study is the first of its kind to concentrate on evaluating the behavioral intentions of a caregiver consumer population to seek out EBS. Such an approach is in line with increasing calls from the literature for consumer-centered design to improve the quality, ecological fit, and reach of EBS (Sanders and Kirby 2012; Santucci et al. 2012). The creation of the PEEBS is also an illustrative example of collaboration between consumers and stakeholders while maintaining theoretically-based scientific inquiry.

The caregiver-driven items from the PEEBS organized into five superordinate domains and nested subdomains, roughly aligning with the TPB (Ajzen 1988, 1991; see Supplementary Materials). The perceived behavioral control domain consisted of six subdomains, was mentioned most frequently by caregivers in Study 1 interviews, and contained the most items in the final measure (32 of the 66 total). Results suggest that this superordinate domain might be the most complicated and multifaceted aspect of behavioral intention for youth EBS. This was illustrated in Study 3 where perceived behavioral control was indicated as containing the largest amount of missing data, possibly due to the relatively high number of items on the scale. Despite the intricate nature of the domain, internal consistency remained acceptable ($\alpha = 0.77$), indicating that the items were conceptually related. The complexity of this domain might also be reflective of the relationship between perceived behavioral control and the diverse approaches that caregivers have for obtaining information about treatment. For example, Cunningham et al. (2008) have identified three unique parent groups (Action, Information, and Overwhelmed) concerning preferences for obtaining information on their children's mental health problems. Action-oriented parents prefer evidence-informed strategies, active learning materials, and are solution- and advocacy-focused while the Information parent segment tends to choose materials that help them understand rather than solve their child's problems, and can be sensitive to logistical factors of treatment. The Overwhelmed parent segment tends to have greater levels of impairment in child and family functioning,

higher personal depression scores than those in the Action or Information segments, and be less willing to change how informed they were. We speculate that item scores on subdomains such as consumer empowerment and/or lack of confidence/control would mostly likely vary across these three parent segments, given their preferences and attributes. The extent to which our caregiver participants represented each of three segments is unknown (Cunningham et al. 2008), and in intersecting our work with theirs, EBS implementation efforts might benefit from developing a wide array of approaches that target diverse caregiver information preferences and perceived behavioral control about acting on those preferences.

Of the five superordinate domains, perceived behavioral control achieved the strongest correlation with behavioral intention. This finding is consistent with extant literature (Armitage and Conner 2001) and preliminarily suggests that stakeholders seeking to influence caregivers' intent to engage in EBS might choose to address items related to perceived behavioral control (e.g., lack of skill) before items in other domains.

The attitudes domain was discussed second most frequently by caregivers in Study 1 and captured 13 items across three subdomains including fit and compatibility, advantages and disadvantages of EBS, and trust in research. The multifaceted nature of this superordinate domain is consistent with at least one other caregiver attitudinal measurement effort, namely the PATPSI (Turner 2012), a survey of parental attitudes towards psychological services. While the PATPSI measure includes three subdomains of help-seeking attitudes, help-seeking intentions, and mental health stigma, the PEEBS offers three distinctly different attitudinal subdomains. Given both the seemingly low overlap between the PATPSI's domains and the PEEBSs attitudes subdomains, and the finding of unacceptable internal consistency ($\alpha = 0.34$) in study 3 for this domain, future research into the area of caregiver attitudes towards EBS is warranted.

The subjective norms and behavioral intention domains did not include subdomains, and evidenced good to acceptable internal consistency ($\alpha = 0.81$ and 0.68, respectively) suggesting that these predictors might involve less complication and nuance for caregiver consumers. The subjective norms domain included themes related to the relevance of social pressures in the importance of treatments (represented by nine items in the PEEBS measure) and the behavioral intention domain was encapsulated by three items assessing caregivers' actual intention to engage in EBS.

Though most of the generated themes roughly followed the three behavioral intention predictors of the TPB, caregiver interviews using the Theme Generation Interview in Study 1 also produced content that did not clearly align with

such theoretical principles and resulted in a general treatment factors domain. This domain consisted of nine common treatment characteristics that were likely to influence caregivers' intentions (e.g., treatment location, family bonds, stigma of mental health treatment) and evidenced unacceptable internal consistency ($\alpha = 0.05$), perhaps due to the lack of theoretical basis in its construction. It is possible that caregivers' lack of knowledge of EBS as a whole might have affected their ability to generate themes solely associated with the TPB. Yet at the same time, it is equally plausible that this current investigation's interview process elucidated general treatment characteristics, such as access (e.g., "The location of services is the most important part of treatment," "I am less concerned with the type of treatments being provided when they are free") and stigma (e.g., "Stigma about treatments makes me less likely to seek services"), that were more pressing and relevant to their decisions to engage in EBS for their children. In a study by Becker et al. (2016a), when parents discussed their overall perceptions of treatment quality, emergent themes included the therapeutic relationship, provider characteristics, and treatment approach (e.g., integrated care, within session structural elements, and parent involvement) rather than the quality and value of evidence-based treatment approaches. Within community mental health, young people and families are often burdened by the lack of available services, systematic disparities, and shortage of providers (Kazdin and Blasé 2011); therefore, the acquisition of any type of mental health treatment might be viewed as a success, regardless of the extent to which that treatment is derived from the evidence-base. Similarly, when evaluating caregiver feedback on the design of a parenting program, Cunningham et al. (2015) found that most participants valued options supported by either research or therapist recommendations, but felt that other features of the program were more significant than the quality and source of evidence supporting the program's efficacy. Despite the challenge of accessing any type of treatment in the first place, our findings further suggest the importance of prioritizing engagement strategies in research (e.g., Lindsey et al. 2014) and community settings, and leveraging creative and consumer-guided engagement strategies (e.g., assessment, accessibility promotion, psychoeducation, homework, appointment reminders; Becker et al. 2018a, 2018b, 2018c) to ensure that families are able to receive the full dosage of treatment, especially EBS.

Interestingly and perhaps unsurprisingly, 83% of caregiver participants in Study 1 reported not knowing or never hearing the term "evidence-based services" prior to participation. Recent focus groups with caregivers to treatment-engaged adolescents with substance use problems found that only two of the 29 caregiver participants had ever heard the term evidence-based practice, and only one participant,

a mental health professional, could correctly define it (Becker et al. 2016b). However, another recent study found that parents concerned about their adolescent's substance use found that the majority of the sample were able to correctly select the definition of evidence-based practice in a multiple choice question (Becker et al. 2018b). Given mixed findings, additional research on parent consumer knowledge and attitudes towards EBS appear warranted, especially given research highlighting skepticism expressed by adult consumers of evidence-based practices in medical health care (Carman et al. 2010). Confusion and lack of knowledge about EBS suggest that there is much to be gained with regard to our field's direct-to-consumer efforts for increasing consumer help-seeking behaviors (Chamberlain 2016) and knowledge, such as clarifying their negative impressions that evidence-based approaches are inflexible or too rigid (Becker et al. 2016b). Optimistically, the rise of novel information delivery formats including social media and other internet-related platforms continues to support and improve upon such efforts, with treatment developers and other stakeholders increasingly capitalizing on different tools to better engage the public and explain the pertinence of EBS (Chamberlain 2016; Nakamura et al. 2011).

Limitations and Future Research Directions

These results should be considered within the context of several limitations. First, the extent to which these small samples of participants and their responses were representative of consumer populations remains largely unknown. Demographic data was not available for the first two studies, and caregivers from Study 3 were predominantly Asian (see Table 2). Further, caregivers were selected based on their interest in the studies and availability, and results might be confounded by characteristics of those who volunteered. For example, caregivers who engaged in Study 1 interviews were seeking or already engaged in services for their children, and might have been more motivated to discuss treatment in general. Some caregivers and their children were receiving EBS at the time of the interview, which might have biased their view of these interventions. That said, caregivers from the public sector were recruited in these studies to maximize generalizability of results to diverse family backgrounds and mitigate potential confounding characteristics. In addition, the participants chosen to aid in the modification and evaluation processes in Study 2 were specifically recruited from varying backgrounds of child mental health professions (e.g., school-based clinicians, case managers) to elicit feedback that reflected an aggregate of their client history. Hopefully, both information directly obtained from the caregiver population combined with input provided by participants with extensive experience working with these

consumers over numerous years minimized potential sampling bias problems.

Second, modification and evaluation participants in Study 2 reviewed a subset of items to minimize the chance of rater fatigue and dropout; therefore, no one participant evaluated the complete pool of measure items. However, at least three participants reviewed each item, reducing the possible bias of having only one rater evaluate all the items. Additionally, in order to assess representativeness, participants across both stages were given the opportunity to suggest additional items to be included in the measure if they felt the overall construct or specific domains were not adequately represented by the available items (Haynes et al. 1995). It is hoped that these efforts minimized the possibility of other confounds.

Third, caregivers' lack of baseline knowledge regarding EBS made the construct of intent to engage in EBS difficult to measure. Based on initial findings, it is not clear whether the PEEBS surveys caregiver views towards treatment in general, rather than opinions specific to EBS. However, we attempted to address this potential problem through several methods. During the interviews in Stage 2 of Study 1, the EBS definition was elaborated upon until caregivers reported having a clear understanding of the construct. The interviews were also structured to ensure that caregivers were prompted to respond to questions in relation to EBS specifically, rather than psychological treatments in general.

Although this study has identified some elements of factors contributing to caregivers' intent to engage in EBS, our understanding is still limited. Moving forward, a next step will be to conduct a larger survey with the PEEBS and psychometrically examine the measure across various types of consumer participants (e.g., ethnicity, social economic status). Efforts towards this goal are currently under way, and it is hoped that forthcoming factor analysis, test-retest reliability, internal consistency and convergent and discriminant validity analyses will aid in refining the measure and potentially reducing the number of items to a more pragmatic length. For example, unacceptable internal consistency was found for two of the five scales in Study 3, therefore future studies could consider modifying or eliminating these scale items based on results from factor analysis. Pending further psychometric support, the PEEBS could be utilized in a number of ways in order to increase consumer-centered dissemination and implementation efforts and build awareness of efficacious psychosocial interventions in caregiver populations. For instance, if perceived behavioral control and attitudes are eventually found to be strong predictors of engaging in EBS, implementation stakeholders may stand to gain from developing interventions for positively affecting and leveraging these dimensions for consumers. Such interventions could include bettering consumers' attitudes towards these types of treatments and increasing their abilities to advocate and even demand such practices.

Findings from exploration into themes generated by parent interviews inform the field that caregiver consumers' intentions to engage in EBS are influenced by their attitudes, perceived behavioral control, subjective norms, and behavioral intentions, along with general treatment factors. The resulting PEEBS measure can be applied in a variety of ways by clinicians, administrators and researchers to inform work with consumer stakeholders. Clinically, case managers or therapists might utilize the resulting PEEBS with clients' caregivers to identify caregiver consumer perspectives on EBS, in order to best tailor engagement and client treatment plans. As an example, responses on the PEEBS could be reviewed with caregivers to initiate conversations about whether issues, such as misconceptions of low perceived behavioral control (e.g., high cost of treatment) or negative attitudes about EBS, might impact the efficacy of treatment. At the system of care level, data collected from the measure could be used to improve service delivery through investigating how caregiver scores relate to actual help seeking behaviors or potential behavior moderators (i.e., child diagnosis, age, or service sector), and examining the predictive power between behavioral intentions and treatment outcomes.

The PEEBS could also serve to help bridge the ongoing science and practice gap, by informing consumer-centered design and consumer demand for EBS. Very little is known about the actual user experience of EBS, and it will be critical for treatment developers to know how best to redesign, market, and promote already efficacious treatments to meet the current needs and wants of diverse subgroups (i.e., socioeconomic, gender, ethnic groups) of youth consumers and their families. As one example, CAMHD's Evidence-Based Services Committee developed and continues to maintain a consumer-oriented website (www.helpyourkeiki.com; "keiki" means child in the Hawaiian language) aimed at disseminating information about research-supported treatments to caregivers and consumers across the state (Chang and Nakamura 2013; Okamura et al. 2018). The website includes a section for caregivers titled "questions to ask your child's therapist," which guides caregivers towards making evidence-based decisions when choosing or evaluating a therapist, treatment, or medication. Findings from caregivers' responses to the PEEBS might help to tailor messaging and language on the website to specific consumer subgroups in order to maximize understanding and interest (Becker et al. 2018b). Social marketing strategies such as these have been used to explore consumer needs, ensure that interventions are matched with those needs, and influence the behavior of consumers to improve their welfare (Andreasen 1995). Additionally, Cleary et al. (2007) demonstrated that

workshops with consumers could be beneficial in increasing knowledge about the role of research and EBS along with intent to participate in associated programs. Such examples indicate that numerous consumer-centered efforts are already underway. However, as the next generation of EBS and innovative techniques for increasing consumer demand evolve, the PEEBS and other similar efforts can hopefully fill a crucial role in guiding the design and regularly evaluating the efficacy of these interventions.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This study was approved by the University of Hawai'i at Mānoa's Institutional Review Board.

Informed Consent Informed consent was obtained for all individual participants included in the study.

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References

Aarons, G. A., Wells, R. S., Zagursky, K., Fettes, D. L., & Palinkas, L. A. (2009). Implementing evidence-based practice in community mental health agencies: A multiple stakeholder analysis. *American Journal of Public Health*, 99, 2087–2095.

Ajzen, I. (1988). *Attitudes, personality and behaviour*. Milton Keynes: Open University Press.

Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behaviour and Human Decision Processes*, 50, 179–211.

Ajzen, I., & Cote, N. G. (2008). Attitudes and the prediction of behavior. In W. D. Crano & R. Prislin (Eds.), *Attitudes and attitudes change, Frontiers of social psychology* (pp. 289–311). New York, NY: Psychology Press.

Andreasen, A. R. (1995). *Marketing social change: Changing behavior to promote health, social development, and the environment*. San Francisco: Jossey-Bass Publishers.

Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology*, 40, 471–499.

Bandura, A. (1986). *Social foundations of thought and action: a social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall, Inc.

Becker, K. D., Boustani, M., Gellatly, R., & Chorpita, B. F. (2018a). Forty years of engagement research in children's mental health services: Multidimensional measurement and practice elements. *Journal of Clinical Child & Adolescent Psychology*, 47(1), 1–23.

Becker, K. D., Nakamura, B. J., Young, J., & Chorpita, B. F. (2009). What better place than here? What better time than now? ABCT's burgeoning role in the dissemination and implementation of evidence-based practices. *The Behavior Therapist*, 32, 89–96.

Becker, S. J., Helseth, S. A., Frank, H. E., Escobar, K. I., & Weeks, B. J. (2018b). Parent preferences and experiences with psychological treatment: Results from a direct-to-consumer survey using the marketing mix framework. *Professional Psychology Research and Practice*, 49(2), 167–176.

Becker, S. J., Midoun, M. M., Zeithaml, V. A., Clark, M. A., & Spirito, A. (2016a). Dimensions of treatment quality most valued by adolescent substance users and their caregivers. *Professional Psychology Research and Practice*, 47(2), 120–129.

Becker, S. J., Spirito, A., & Vanmali, R. (2016b). Perceptions of 'evidence-based practice' among the consumers of adolescent substance use treatment. *Health Education Journal*, 75, 358–369.

Becker, S. J., Weeks, B. J., Escobar, K. I., Moreno, O., Demarco, C. R., & Gresko, S. A. (2018c). Impressions of "evidence-based practice": A direct-to-consumer survey of caregivers concerned about adolescent substance use. *Evidence-Based Practice in Child and Adolescent Mental Health*, 3(2), 70–80.

Bennet, D. S., Power, T. J., Rostain, A. L., & Carr, D. E. (1996). Parent acceptability and feasibility of ADHD interventions: Assessment, correlates, and predictive validity. *Journal of Pediatric Psychology*, 21, 643–657.

Burgess, A. M., Chang, J. P., Nakamura, B. J., Izmirian, S., & Okamura, K. H. (2017). Evidence-based practice implementation within a theory of planned behavior framework. *Journal of Behavioral Health Services & Research*, 44, 647–665.

Carman, K. L., Maurer, M., Yegian, J. M., Dardess, P., McGee, J., Evers, M., & Marlo, K. O. (2010). Evidence that consumers are skeptical about evidence-based health care. *Health Affairs*, 29(7), 1400–1406.

Chamberlain, J. (2016). #give psychology away. *Monitor on Psychology*, 47, 40.

Chang, J. P. & Nakamura B. J. (2013). "Help Your Keiki": development and implementation of a consumer-centric website on youth evidence-based practices. *American Psychological Association*, pp. 1, 4. http://www.apa.org/pi/families/resources/newsletter/2013/04/consumer-centric.aspx.

Chorpita, B. F., & Regan, J. (2009). Dissemination of effective mental health treatment procedures: maximizing the return on a significant investment. *Behaviour Research & Therapy*, 47, 990–993.

Clark, L. A., & Watson, D. (1995). Constructing validity: basic issues in objective scale development. *Psychological Assessment*, 7, 309–319.

Cleary, M., Hunt, G. E., Freeman, A., & Walter, G. (2007). Staff and patient perceptions of research in an integrated mental health service. *Issues in Mental Health Nursing*, 28, 341–358.

Cunningham, C. E., Deal, K., Rimas, H., Buchanan, D. H., Gold, M., Sdao-Jarvie, K., & Boyle, M. (2008). Modeling the information preferences of parents of children with mental health problems: a discrete choice conjoint experiment. *Journal of Abnormal Child Psychology*, 36, 1123–1138.

Cunningham, C. E., Rimas, H., Chen, Y., Deal, K., McGrath, P., Lingley-Pottie, P., & Corkum, P. (2015). Modeling parenting programs as an interim service for families waiting for children's mental health treatment. *Journal of Clinical Child & Adolescent Psychology*, 44, 616–629.

Dodangi, N., Vameghi, R., & Habibi, N. (2017). Evaluation of knowledge and attitude of parents of attention deficit/hyperactivity disorder children towards attention deficit/hyperactivity disorder in clinical samples. *Iranian Journal of Psychiatry*, 12(1), 42–48.

Flynn, L. M. (2005). Family perspectives on evidence-based practice. *Child and Adolescent Psychiatric Clinics of North America*, *14*, 217–224.

Francis, J. J., Eccles, M. P., Johnston, M., Walker, A., Grimshaw, J., Foy, R., & Bonetti, D. (2004). *Constructing questionnaires based on the theory of planned behaviour: a manual for health services researchers*. New Castle, UK: Centre for Health Services Research.

Francis, J. J., Johnston, M., Robertson, C., Glidewell, L., Entwistle, V., Eccles, M. P., & Grimshaw, J. M. (2010). What is an adequate sample size? Operationalising data saturation for theory-based interview studies. *Psychology and Health*, *25*, 1229–1245.

Frank, T. J., Keown, L. J., & Sanders, M. R. (2015). Enhancing father engagement and interparental teamwork in an evidence-based parenting intervention: a randomized-controlled trial of outcomes and processes. *Behavior Therapy*, *46*(6), 749–763.

Friedberg, R. D., & Bayar, H. (2017). If it works for pills, can it work for skills? Direct-to-consumer social marketing of evidence-based psychological treatments. *Psychiatric Services*, *68*(6), 621–623.

George, D., & Mallery, P. (2003). *SPSS for windows step by step: a simple guide and reference. 11.0 update*. 4th ed. Boston: Allyn & Bacon.

Glaser, B., & Strauss, A. L. (1967). *The discovery of grounded theory*. New York, NY: Aldine Publishing Company.

Godin, G., & Kok, G. (1996). The theory of planned behavior: a review of its applications to health-related behaviors. *American Journal of Health Promotion*, *11*, 87–98.

González, T. G., López, M. C. N., Marcos, Y. Q., & Rodríguez-Marín, J. (2012). Development and validation of the theory of planned behavior questionnaire in physical activity. *The Spanish Journal of Psychology*, *15*, 801–816.

Goodday, A., Corkum, P., & Smith, I. M. (2014). Parental acceptance of treatments for insomnia in children with attention-deficit/hyperactivity disorder, autistic spectrum disorder, and their typically developing peers. *Children's Health Care*, *43*(1), 54–71.

Gruttadaro, D., Burns, B., Duckworth, K., & Crudo, D. (2007). *Choosing the right treatment: what families need to know about evidence-based practices*. Arlington, VA: National Alliance on Mental Illness.

Hamilton, J. D. (2004). Evidence-based thinking and the alliance with parents. *American Academy of Child and Adolescent Psychiatry*, *43*, 105–108.

Haynes, S. N., Richard, D. C. S., & Kubany, E. S. (1995). Content validity in psychological assessment: a functional approach to concepts and methods. *Psychological Assessment*, *7*, 238–247.

Higa-McMillan, C., Kotte, A., Jackson, D., & Daleiden, E. L. (2017). Overlapping and non-overlapping practices in usual and evidence-based care for youth anxiety. *The Journal of Behavioral Health Services & Research*, *44*(4), 684–694.

Hoagwood, K. E. (2005). Family-based services in children's mental health: a research review and synthesis. *Journal of Child Psychology and Psychiatry*, *46*, 690–713.

Horwitz, S. M., Chamberlain, P., Landsverk, J., & Mullican, C. (2010). Improving the mental health of children in child welfare through the implementation of evidence-based parenting interventions. *Administration and Policy in Mental Health and Mental Health Services Research*, *37*(1-2), 27–39.

Johnston, C., Seipp, C., Hommersen, P., Hoza, B., & Fine, S. (2005). Treatment choices and experiences in attention deficit and hyperactivity disorder: relations to parents' beliefs and attributions. *Child Care, Health, and Development*, *31*, 669–677.

Kazdin, A. E., & Blase, S. L. (2011). Rebooting psychotherapy research and practice to reduce the burden of mental illness. *Perspectives on Psychological Science*, *6*, 21–37.

King, N. (1998). Template analysis. In G. Symon & C. Cassell (Eds.), *Qualitative methods and analysis in organizational research: a practical guide* (pp. 118–134). Thousand Oaks, CA: Sage Publications.

Knowlden, A. P., Sharma, M., & Bernard, A. L. (2012). A theory of planned behavior research model for predicting the sleep intentions and behaviors of undergraduate college students. *The Journal of Primary Prevention*, *33*, 19–31.

Koren, P. E., DeChillo, N., & Friesen, B. J. (1992). Measuring empowerment in families whose children have emotional disabilities: a brief questionnaire. *Rehabilitation Psychology*, *37*, 305–321.

Lazaratou, H., Anagnostopoulos, D. C., Alevizos, E. V., Haviara, F., & Ploumpidis, D. N. (2007). Parental attitudes and opinions on the use of psychotropic medication in mental disorders of childhood. *Annals of General Psychiatry*, *6*, 32.

Lindsey, M. A., Brandt, N. E., Becker, K. D., Lee, B. R., Barth, R. P., Daleiden, E. L., & Chorpita, B. F. (2014). Identifying the common elements of treatment engagement interventions in children's mental health services. *Clinical Child and Family Psychology Review*, *17*, 283–298.

McHugh, R. K., & Barlow, D. H. (2010). The dissemination and implementation of evidence-based psychological treatments: a review of current efforts. *American Psychologist*, *65*, 73–84.

Nakamura, B. J., Chorpita, B. F., Hirsh, M., Daleiden, E., Slavin, L., Amundson, M. J., & Stern, K. (2011). Large-scale implementation of evidence-based treatments for children ten years later: Hawaii's evidence-based services initiative in children's mental health. *Clinical Psychology Science and Practice*, *18*, 24–35.

Okamura, K. H., Orimoto, T. E., Mah, A. C., Slavin, L. A., Rocco, S., Shimabukuro, S. K., & Nakamura, B. J. (2018). Insights in public health: the help your keiki website: increasing youth and caregiver awareness of youth psychosocial mental health treatment. *Hawai'i Journal of Medicine & Public Health*, *77*(8), 203–207.

Proctor, E. K., Landsverk, J., Aarons, G., Chambers, D., Glisson, C., & Mittman, B. (2009). Implementation research in mental health services: an emerging science with conceptual, methodological, and training challenges. *Administration and Policy in Mental Health and Mental Health Services Research*, *36*, 24–34.

Proctor, E., Silmere, H., Raghavan, R., Hovmand, P., Aarons, G., Bunger, A., & Hensley, M. (2011). Outcomes for implementation research: conceptual distinctions, measurement challenges, and research agenda. *Administration and Policy in Mental Health and Mental Health Services Research*, *38*, 65–76.

Raghavan, R., Inoue, M., Ettner, S. L., Hamilton, B. H., & Landsverk, J. (2010). A preliminary analysis of the receipt of mental health services consistent with national standards among children in the child welfare system. *American journal of public health*, *100*(4), 742–749.

Reid, A. M., Guzick, A. G., Fernandez, A. G., Deacon, B., McNamara, J. P., Geffken, G. R., & Striley, C. W. (2018). Exposure therapy for youth with anxiety: utilization rates and predictors of implementation in a sample of practicing clinicians from across the United States. *Journal of Anxiety Disorders*, *58*, 8–17.

Richardson, L. A. (2001). Seeking and obtaining mental health services: what do parents expect? *Archives of Psychiatric Nursing*, *15*, 223–231.

Rogers, E. M. (1995). Lessons for guidelines from the diffusion of innovation. *Joint Commission Journal on Quality Improvement*, *21*, 324–328.

Sanders, M. R. (2008). Triple P-Positive Parenting Program as a public health approach to strengthening parenting. *Journal of Family Psychology*, *22*, 506–517.

Sanders, M. R., & Kirby, J. M. (2012). Consumer engagement and the development, evaluation, and dissemination of evidence-based parenting programs. *Behavior Therapy*, *43*, 236–250.

Sanders, M. R., Markie-Dadds, C., Rinaldis, M., Firman, D., & Baig, N. (2007). Using household surveys data to inform policy

decisions regarding the delivery of evidence-based parenting interventions. *Child Care, Health and Development*, 33, 768–783.

Santucci, L. C., McHugh, R. K., & Barlow, D. H. (2012). Direct-to-consumer marketing of evidence-based psychological interventions: Introduction. *Behavior Therapy*, 43, 231–235.

Sayal, K., Tischler, V., Coope, C., Robotham, S., Ashworth, M., Day, C., & Simonoff, E. (2010). Parental help-seeing in primary care for child and adolescent mental health concerns: qualitative study. *The British Journal of Psychiatry*, 197, 476–481.

Silverman, W. K., & Hinshaw, S. P. Evidence-based psychosocial treatments for children and adolescents: a ten year update [Special issue]. *Journal of Clinical Child and Adolescent Psychology*, 37, 1–301.

Skogstad, P., Deane, F. P., & Spicer, J. (2006). Social-cognitive determinants of help seeking for mental health problems among prison inmates. *Criminal Behaviour and Mental Health*, 16, 43–59.

Smith, J. P., Tran, G. Q., & Thompson, R. D. (2008). Can the theory of planned behavior help explain men's psychological help-seeking? Evidence for a mediation effect and clinical implications. *Psychology of Men & Masculinity*, 9, 179–192.

Spoth, R., & Redmond, C. (1993). Identifying program preferences through conjoint analysis: illustrative results from a parent sample. *American Journal of Health Promotion*, 8, 124–133.

Stirman, S. W., Crits-Cristoph, P., & DeRubeis, R. J. (2004). Achieving successful dissemination of empirically supported psychotherapies: a synthesis of dissemination theory. *Clinical Psychology Science and Practice*, 11, 343–359.

Substance Abuse and Mental Health Services Administration (2008). National registry of evidence-based programs and practices. https://www.samhsa.gov/nrepp.

Tanenbaum, S. J. (2008). Perspectives on evidence-based practice from consumers in the US public mental health system. *Journal of Evaluation in Clinical Practice*, 14, 699–706.

Teh, L. B., Hayashi, K., Latner, J., & Mueller, C. W. (2016). Consumer attitudes towards evidence based mental health services among American mental health consumers. *International Journal for Mental Health Nursing*, 25, 462–471.

Teh, L. B., & Mueller, C. W. (2011). Psychometric properties and factor analysis of the consumer attitudes towards evidence-based services (CAEBS) Scale. *Paper presented at the Annual Convention of the Association of Behavioral and Cognitive Therapies.* Toronto, ON, Canada.

Tully, L. A., Piotrowska, P. J., Collins, D. A., Frick, P. J., Anderson, V., Moul, C., & Dadds, M. R. (2018). Evaluation of 'the father effect' media campaign to increase awareness of, and participation in, an online father-inclusive parenting program. *Health Communication*, 9, 1–10.

Tully, L. A., Piotrowska, P. J., Collins, D. A., Mairet, K. S., Black, N., Kimonis, E. R., & Anderson, V. (2017). Optimising child outcomes from parenting interventions: fathers' experiences, preferences and barriers to participation. *BMC Public Health*, 17(1), 550.

Turner, E. A. (2012). The parental attitudes toward psychological services inventory: adaptation and development of an attitude scale. *Community Mental Health Journal*, 48, 436–449.

Vogel, D. L., Wester, S. R., Wei, M., & Boysen, G. A. (2005). The role of outcome expectations and attitudes on decisions to seek professional help. *Journal of Counseling Psychology*, 52, 459–470.

Weber, R. P. (1985). *Basic content analysis.* Beverly Hills, CA: Sage Publications.

Weissman, M. M., Verdeli, H., Gameroff, M. J., Beldsoe, S. E., Betts, K., Mugson, L., & Wickramaratne, P. (2006). National survey of psychotherapy training in psychiatry, psychology, and social work. *Archives of General Psychiatry*, 63, 925–934.

Yeh, M., Aarons, G. A., Ho, J., Leslie, L. K., McCabe, K., Tsai, K., & Hough, R. (2014). Parental etiological explanations and longitudinal medication use for youths with attention deficit hyperactivity disorder. *Administration and Policy in Mental Health and Mental Health Services Research*, 41(3), 401–409.