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Review Article

Evidence-based psychosocial treatment in the community: considerations for dissemination and implementation

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Abstract

***Background*: In psycho-oncology care, steps toward dissemination and implementation of evidence-based treatments (EBTs) have not been made. For this to change, factors associated with real-world dissemination and implementation must be identified. In the community, providers, their organizations, and patients are key stakeholders.**

***Method*: A focused review of literatures in continuing education, dissemination, and implementation of mental health services is provided.**

***Results*: Early-career providers are most ready to implement as they have greater openness and more positive attitudes toward EBTs. Current continuing education practices to teach EBTs have limited effectiveness. Instruction using interactive strategies tailored to therapists' clinical needs and the provision of post-education consultation is needed. There is tension between EBT delivery with fidelity and the necessity for adaptation. EBT service provision is the key outcome of implementation, and documenting such is important to patients, providers, and organizations.**

***Conclusion*: A multilevel conceptual framework, Setting, Therapist, Education, imPlementation, and Sustainability, is offered and provides directions for dissemination and sustainable implementation. Guidelines from the Commission on Cancer of the American College of Surgeons and the American Society of Clinical Oncology underscore the timeliness of the proposed framework to move EBTs from the research settings where they were developed to the practice settings where they are needed.**

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Background

The importance of providing psychosocial care for patients with cancer has been affirmed [1] and reaffirmed [2]. More generally, the field of mental health (e.g., National Alliance on Mental Illness) has noted the importance of using empirically supported and evidence-based treatments (EBTs), and there are criteria for identifying the level of empirical support for an intervention [3] (Table 1). In cancer, hundreds of randomized controlled trials have tested psychological treatments and are found to be efficacious in reducing stress, enhancing positive coping and quality of life (e.g., [4]), improving health behaviors [5], enhancing biologic responses [6,7], and, in some circumstances, reducing risk for recurrence [8] or cancer death [9,10]. In combination, the achievements in mental health/psychological sciences and psychosocial oncology should have led to the provision of EBTs to patients with cancer, yet underutilization of EBTs in the community is the norm [11].

Gaps in providing patients with cancer with evidence-based treatments

The earliest steps to dissemination of psychological and behavioral EBTs have not been made [12]. For example, only 11 of the 155 postings on the National Cancer Institute's Research-tested Intervention Programs website reference psychosocial interventions. Of the latter, none focus on those at the highest risk for distress—newly diagnosed patients [13]. While there is online training for EBTs such as cognitive behavior therapy (CBT; http://www.ebbp.org/training.html; http://www.beckinstitute.org/) and dialectical behavior therapy (http://behavioraltech.org/ol/), there is little comparable for therapists treating patients with cancer. Even treatment manuals from randomized clinical trials are generally not published, excepting a few (e.g., [14,15]). Thus, even the motivated therapist wishing to self-train has few resources.

Continuing education (CE) is one vehicle for mental health professionals to learn EBTs, but there are few CE opportunities for cancer-specific EBTs. A survey of professional conferences [e.g., Society of Behavioral Medicine, American Society of Psychosocial Oncology (APOS), and International Psychosocial Oncology Society] within the last 3 years finds that of the hundreds of CEs, only 11 were cancer-specific. Five of the offerings discussed the applicability of empirically supported treatments (e.g., cognitive therapy and acceptance and commitment therapy) to patients with cancer, and the remaining six discussed treatments developed for patients with cancer though ones not yet empirically evaluated. International Psychosocial Oncology Society and APOS are the most

Table 1. Definitions regarding level of empirical support

Concept	Definition/criteria	Examples
Empirically supported treatments	Well-established treatments are defined by establishing either criteria 1 or 2 and criteria 3, 4, and 5 [3]: 1. At least two between group designs have demonstrated that the treatment was superior to a pill, placebo, or other psychotherapy treatment or was equivalent to an already established treatment 2. Efficacy has been demonstrated in a series of single-case design experiments using good experimental design and comparing the treatment with another treatment 3. Trials have been conducted using treatment manuals or with clear description of the treatment 4. Characteristics of the samples for the trials have been described previously 5. The efficacy of the treatment must be demonstrated by two or more different investigators or teams	Many empirically supported psychological treatments exist, including but not limited to the following: CBT for panic disorder, CBT for major depressive disorder, Master's and Johnson's sex therapies, dialectical behavioral therapy and so on.
Evidence-based psychological intervention	Psychological interventions derived from clinical research studies. Specifically, the NCI Research-tested Intervention Programs criteria require the following: 1. Intervention findings have been published in a peer-reviewed journal 2. Intervention has been shown to be efficacious ($p < 0.05$) for one or more psychosocial and/or behavioral outcomes, and these outcomes have been found in the context of an experimental (i.e., random assignment, comparison group, and pre-intervention and post-intervention assessments) or quasi-experimental (i.e., does not require random assignment, includes a comparison group, and uses pre-intervention and post-intervention assessment) study 3. Study materials must be disseminable in a community or clinical setting 4. Intervention was conducted within the last 10 years	At present, only 14 programs designed for cancer survivors have been registered with RTIPs. Many if not most of the RCTs in cancer would meet these standards. Interventions currently listed on the RTIPs website include the following: Effects of psychosocial treatment on cancer survivorship; Bright IDEAS: problem-solving skills training; Alleviating depression among patients with cancer (ADAPt-C); and Surviving cancer completely (SCCIP). Examples of published treatment manuals include the following: Stress management intervention for women with breast cancer; Coping with breast cancer: workbook for couples; and Mindfulness-based cancer recovery: a step-by-step MBSR approach to help you cope with treatment and reclaim your life
Evidence-based practice in psychology	The use of treatments in clinical practice that have been found to be efficacious in rigorous scientific studies (e.g., large-scale clinical trials comparing the intervention with other psychological treatments). As explained by national organizations (e.g., APA, ABCT, and APOS), evidence-based practice integrates research with clinical expertise to make informed practice decisions.	Best Practice Guidelines have been developed by several organizations, including but not limited to the following: Canadian Association of Psychosocial Oncology, National Breast Cancer Centre and National Cancer Control Initiative, National Comprehensive Cancer Network, and others.

CBT, cognitive behavior therapy; NCI, National Cancer Institute; RTIPS, Research-tested Intervention Programs; RCTs, randomized controlled trials; IDEAS, Identify the problem, Determine the options, Evaluate the options and choose the best, Act, and See if it worked; SCCIP, surviving cancer competently intervention program; APA, American Psychological Association; ABCT, Association for Behavioral and Cognitive Therapies; APOS, American Psychosocial Oncology Society.

likely to offer relevant CEs. For example, at a recent APOS conference (February, 2014), one workshop was entitled 'What's an Evidence-Based Psychosocial Intervention Anyway?' On the web, APOS webinars have provided information about selecting and using existing EBTs as well as information on adaption with patients with cancer. Taken together, these are important early efforts to build awareness among providers of the importance of EBTs; however, additional steps are necessary to bring about systematic EBT dissemination.

Methods

The problem—limited provision of psychosocial EBTs to patients with cancer—is significant, and the answers are complex and multifaceted [16], extending beyond a 'fix' of the gaps noted earlier. In considering this issue, Pollack *et al*. [12] identified key partners in survivorship dissemination: research institutions (e.g., the National Cancer Institute and academia), the public health system (e.g., Centers for Disease Control), organizations (e.g., APOS), the community, and patients/survivors. In this review, we consider issues specifically relating to oncology mental health professionals working in the community, that is, working independently, or those in community cancer centers, hospitals, clinics, and other facilities, wishing to move toward EBT usage. Oncologists and supporting medical persons such as oncology nurses face their own barriers to providing evidence-based psychosocial care [17], but we focus here on those licensed and trained to deliver mental health care. In doing so, the review considers literatures in CE and dissemination and implementation of mental health interventions.

Results: STEPs model for dissemination and implementation of psychosocial evidence-based treatments

A model, Setting, Therapist, Education, imPlementation, and Sustainability (STEPS; Figure 1), frames the review

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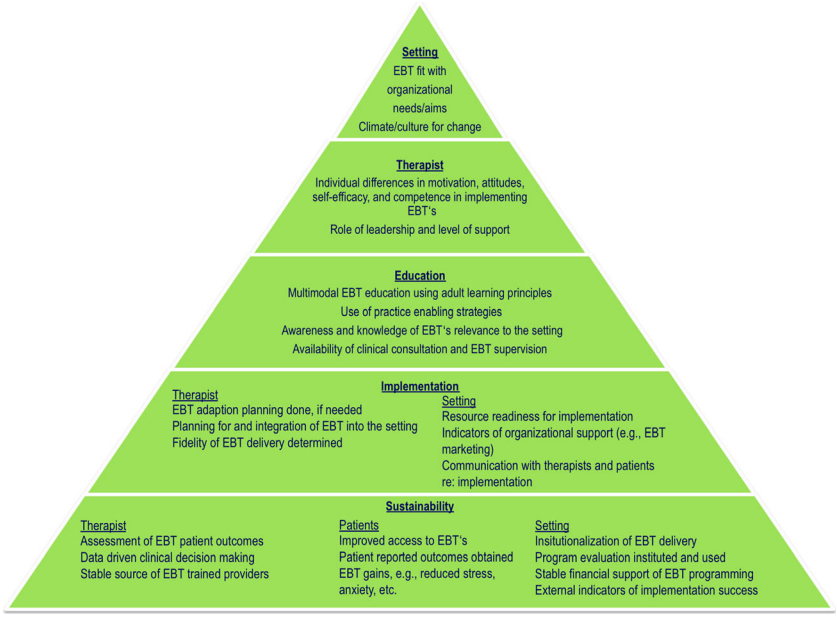

Figure 1. Setting, Therapist, Education, imPlementation, and Sustainability model is multilevel; including stakeholders is key to considering, initiating, achieving, and maintaining the delivery of evidence-based psychosocial treatments to cancer patients. EBT, evidence-based treatment

and the discussion. Coincident with the provider's (therapist's) intentions to use EBTs are domains which impact dissemination and implementation, namely, the setting or organization in which the EBT will be used, the patients receiving the EBT, and the interaction of both with providers' efforts. STEPS is a model of increasing effort at successive levels. This perspective is particularly relevant for those within community hospitals or cancer centers and non-profit providers, but the model is also relevant to the independent mental health provider.

Setting

Characteristics of settings [18] or individuals within a setting other than the providers influence the likelihood of EBT implementation [19]. One broad issue is the 'fit' of the EBT with the aims and needs of the organization. Settings vary in the extent and type of facilitators and/or barriers [20–23] to EBT implementation. Some therapists may be in settings which are 'null', that is, those without obvious barriers, but also ones offering no support. These settings may operate as if the provider/therapist will single-handedly implement the EBT. Of course, this is the implementation circumstance for the independent clinician. While it is unlikely that EBT adoption will be the first experience with change, organizations differ in climate/culture and the extent to which they understand the time and effort required to implement programming changes [17,24].

Key leaders in an organization create readiness for change and develop plans, practices, and mechanisms to support EBT implementation [25]. Support is particularly important when the to-be-implemented treatment requires coordinated actions of team members, alternate models of service delivery, or different funding/billing structures for its delivery [21,23]. One example might be the added effort required for referral, scheduling, or billing to simply implement an aspect of an EBT, such as delivery in a group format, when the previous therapy model is individual treatment.

To move systems, a therapist often needs to build early awareness and understanding of the EBT and its relevance to the organization and the meeting of patients' needs [26]. Such factors have been noted as relevant to adoption (see A of RE-AIM model) of an innovation [27]. Indeed, the process of adopting an EBT in a setting has been described as dynamic, having multiple stages (e.g., pre-implementation, implementation, and sustainability from Chamberlain, Brown, & Saldana, 2011; and knowledge management functions of Hack *et al.*, 2011) [24,28]. Thus, a melding of the interests of the therapist in EBT provision and the organization's interests and goals to adopt EBT best practices is suggested by the literature.

Therapists

Who is the most motivated to learn and use EBTs? Early-career mental health providers appear to be so [29], as they have greater openness [30] and more positive attitudes toward EBTs [31]. Disinterest in adopting a new EBT can be as formidable a barrier as not having any opportunity to learn the EBT [32]. Therapist variables also interact with setting variables. Clinicians have more positive attitudes toward adopting EBTs when they come from settings described as 'proficient'—a setting with

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the expectation to place the well-being of the clients first and the expectation for therapists to be competent and have up-to-date knowledge [33]. Conversely, providers in stressful climates are less likely to adopt an EBT [33].

Education

Evidence-based treatment diffusion is a passive process by which information about an intervention is initially absorbed by interested individuals. CE, however, is substantive dissemination, with presentations of EBT theory and empirical support, the clinical rationales for and description of the treatment components, and the provision of a therapist and/or patient manual. The majority of CEs are instructionally efficient, that is, didactic lectures to large numbers of providers/trainees at a single venue for a short period (e.g., 2–4 h; [34]). There is the expectation that therapists will come away with knowledge, positive attitudes toward and intentions to the use of the EBT, and belief in their capability to implement the new treatment [35]. With the typical CE, however, these outcomes do not occur, or they are short-lived.

In fact, therapists find didactics to be the least useful training modality [36]. So too, the available data on maintenance suggest knowledge gains are short-lived. When surveyed 4–6 months post-training, trainees attending didactic-focused workshops reported levels of knowledge comparable with those of clinicians who did not attend the training [22,37], suggesting that didactics alone are insufficient for new skill learning [36]. For example, Sholomskas *et al*. [38] compared CE didactics with manual provision when teaching CBT versus the addition of clinical supervision. Those in the didactic-only condition reported the lowest level of skills and adherence to CBT principles immediately following the CE, and there were further declines over the next 3 months.

What education models would provide better training? A CE with the aim of dissemination and implementation would be one with a strategic approach to encourage the adoption of new ideas and practices [39]. CEs with the following characteristics would be more effective: the use of interactive strategies (e.g., role play, clinical practice sessions [40–42], instruction based on therapists' clinical needs [38], and provision of practice enabling strategies [38,43]). In this model, trainees interact with the trainers, the knowledge they provide, the materials or manuals they use, and the clinical skills they teach.

Partially overlapping and consistent with multimodal instruction methods is that using adult learning principles, that is, education that is learner-centered, active rather than passive, relevant to the learner's needs, engaging, and reinforcing [44]. Practice sessions that are sequenced —learn-work-learn—enable trainees to understand the treatment, to practice the clinical skills of its delivery, and to receive feedback and reinforcement for conceptual understanding and practical skills. Behavioral role-plays build self-efficacy and provide opportunities for modeling, practice, and interaction [45]. Data suggest that activities of this type instill therapist confidence [46].

ImPlementation

Implementation is the movement of EBTs from the experimental, controlled environment into the actual delivery contexts where the programs will be promoted, utilized, and integrated into the organizational culture or the community [47]. As such, providing assistance to therapists to implement treatments has long been regarded as essential [20]. Its importance has been seen in EBTs implemented with children (e.g., [48]), adults (e.g., [49]), and special populations (e.g., [40]). Current advocates [41,42,50], however, note that only long-term clinical consultation or supervision will promote therapists' retention of knowledge, competence, and self-efficacy. After CE, adoption of the EBT may take weeks to months, making the provision of support essential. Support has the intent of insuring readiness to implement, as the shorter the lag between learning a new treatment and availability of a patient to be treated, the greater is the therapist's motivation to use the treatment [51].

The rationale for focusing on consultation and supervision is to achieve EBT delivery with fidelity [52]. Fidelity is conceptualized as having multiple components (Clinical Psychological Science Practice (vol. 20, 2013)) [52,53]: treatment adherence (Does the therapist deliver the treatment as designed?), treatment differentiation (Do therapists' modifications of the treatment substantively change the nature and efficacy of the EBT?), therapist competence (Does the therapist possess the technical skills important for successful EBT delivery?), and therapeutic relationship (Can the therapist achieve a successful alliance with the patient and engage him/her in treatment?). This definition implies that usage without fidelity will not, in essence, be the EBT. However, there is a tension between fidelity and the necessity for many therapists to adapt EBTs to his or her patients or circumstances of delivery.

In many settings, however, revenue generated from psychosocial services trumps any aspect, including fidelity, of treatment delivery. Most organizations, including nonprofit want a business model specifying what a programmatic change will cost and, in general, if it will improve care and service provision. Organizations may not readily see the advantages or incentives for psychological EBTs as they do when considering the purchase of a new Magnetic Resonance Imaging machine, for example. To the extent that a therapist can make the case that the EBT will solve a problem, policy issue, and so on for the organization, implementation will be supported [54].

While uncommonly considered, patients can be the compelling voices regarding the adoption of EBTs. In the general case, most people with mental illness do not

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receive services (New Freedom Commission on Mental Health Report) or may not follow through when referred [55]. Another impediment for patients with cancer is oncology providers not discussing or asking patients about their mental health needs [56]. Providers cooperatively engaging patients in the discussion of a new program offering would, at the least, increase institutional awareness of patients' needs for access to EBTs. Moreover, patients are information sources for factors, which will facilitate or hinder usage of a new treatment [17].

Sustainability

Sustainment is maintaining the actions required for implementation and subsequently having evaluation outcomes [57,58] to show that implementation continues and is successful [59]. Damschroder *et al*. [21] and others [60] note that sustainability is the outcome of implementation yet there has been little empirical progress in its study [61] despite reference to it in dissemination/implementation conceptual models [e.g., 'maintenance' in RE-AIM, factors facilitating sustainment in organizational readiness for change, and sustained regulation in Glisson and Shoenwald's Availability, Responsiveness, Continuity (ARC) [62]]. Broad characteristics of sustainment include penetration of usage across staff, evidence that EBT delivery improves with time [57,58,60], and evidence of EBTs' impact on the aims and goals of the setting [63] (e.g., Are patients more likely to seek services? Are new monies for services obtained?). Large organizations are particularly interested in the external indicators of successful change, such as evidence of internal penetration [58,64] or external market share [57].

Sustained usage and improved patient outcomes from mental health treatments have been found when there is ongoing organizational communication and personnel support [65] or feedback [66]. A goal is that the EBT as implemented can produce patient outcomes comparable with those found in clinical trials and validation studies. For this, providers need education as to how this can be accomplished. EBT CEs could enhance therapists' knowledge of 'systematic outcome measures' and how to use them to make decisions about continuing, altering, or terminating treatment for the individual patient [67]. When patient monitoring is done, patients are more adherent to therapy, and more positive clinical outcomes are achieved [68]. Less relevant for patient outcomes, though commonly used, are measures of patient satisfaction. Satisfaction data are plagued with ceiling effects, rendering comparative decision-making or program evaluation difficult (e.g., [69]).

Institutions increasingly need program evaluation data, and it is relatively easy for EBTs to produce outcomes about which institutions care. That is, patient data collection is program evaluation, and therapists capable of providing patient data can be assets. Such data are used internally but can also be used to 'market' an institution's or therapist's EBT offerings and the positive patient outcomes that result. Metrics documenting the success of EBT implementation may also serve as a positive impetus for future EBT adoptions. Thus, empirical documentation of an EBT's substantive benefit may incentivize settings to provide resources to sustain EBT usage and consider expansion to other EBTs.

Summary and conclusions

The STEPS model frames the discussion and suggests that we educate to disseminate and sustain implementation rather than only educate, with the task including multiple constituencies rather than only therapists. 'Setting' is used to represent the organization and personnel other than the therapist, which will be influential to EBT implementation. The therapist is a key advocate for EBT adoption; however, the therapist and the setting acting together increase the chance of adoption, implementation, and sustainability. The same may be true for independent therapists when seeking early confirmation that the EBT will be seen by their referral base as an important, new offering. Implementation efforts are most productive when expertise and information are shared and collaborative solutions and facilitating pathways are found.

Currently, CE is the most commonly used avenue for post-graduate mental health professionals to learn EBTs. In large measure, education is didactic with the current 'gold standard' including a workshop and a manual. As currently operationalized, CE has limited capability for achieving implementation. Post CE support—coaching [42] or clinical supervision—is extremely important, but it is infrequently offered. Licensure laws mandate CE for psychologists, social workers, psychiatrists, mental health nurses, and related professionals, and each person may spend hundreds of dollars annually to do so. However, it is not clear why psychosocial oncology providers should be content with CE offerings that are minimally effective in the short or long term. Instead, the CE market can be competitively driven —pulled along—by informed professionals seeking out education methods that work (e.g., multimodal, adult learning centered, and post support) rather than those that do not (e.g., large enrollments and didactics only).

Continuing education could be further enhanced by the addition of two content areas. If therapists are educated about the empirical support for a particular treatment, then it would seem that helping therapists learn to document their own empirical support for the EBT with their patients would be a logical extension. Providing such training underscores the importance (and ease) of data-driven decision-making in clinical work. Another relevant content is assisting providers' to plan for adaptation of and organizational adoption of the EBT. It is helping the therapist answer the relevant questions [70]: what treatment components are to be

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delivered (i.e., treatment adherence); if components are to be altered, will it be a substantial departure from the EBT (i.e., treatment differentiation); who are the appropriate patients, and are their presenting difficulties relevant to this EBT; from whom and how will patients be referred; are there special resources that must be available (e.g., manuals and treatment space), and others. The inclusion of both assessment and planning would be novel components for a new 'gold standard' for EBT CE.

There are multiple reasons to aid the therapist's transition to EBT usage. The first is to achieve generalization from the CE: maintain knowledge gained, retain the positive attitudes and intentions to use, and enhance therapists' self-efficacy for usage. The second is to provide guidance or supervision on the delivery of the EBT. We will not reiterate the benefits for this, and reviews of such are available [e.g., Clinical Psychological Science and Practice, 2013, 20 (whole issue)]. Borrowing from the world of marketing, however, both of these reasons are elements of 'push' in a push/pull model of dissemination. That is, both training for generalization and therapist support are aimed at moving ('pushing') the implementation of the EBT into the community.

A third reason for support is to help therapists achieve 'pull' for implementation, that is, how to create demand for the EBT in the setting/referral base and from patients. The few studies assisting therapists with these domains show positive therapist and patient outcomes [71,72] when therapists have EBT 'champions' (other staff) who pull for adoption. Patient voices in support of new, improved psychological services can also be powerful, persuasive, and attention getting. While the emphasis in most patient-based cancer organizations is on finding a cure, not far behind is the concern about the stressful nature of cancer and the quality of life disruptions it brings. Both of the latter facts are clear, but what may be less known to patients is that EBTs are available and capable of reducing stress and improving the quality of life. To the extent that patients and their advocates are aware of EBT benefits, they are a force to pull for the provision of EBTs in the community. This is not the EBT marketing that some suggest [73], but it is enlisting patient voices into the discussion of EBT access for all.

We note that STEPS is more than an abstraction. Though not labeled such, the principles are readily seen in the comprehensive dissemination studies from the Veteran's Administration (VA). Between 2011 and 2012, the VA provided comprehensive training in treatments for insomnia to therapists selected because of their CBT background and other essential characteristics [72]. The 3-day training included didactic, small-group and large-group discussions, video demonstrations, and role-play exercises with trainer feedback. This was supplemented with 4 months of weekly telephone consultations during which supervisors reviewed the taped sessions and provided assistance with challenges to implementation. Among the patient dissemination outcomes were significant reductions in symptoms of insomnia and depression and improvements in the quality of life. Analogous patient outcomes were found in the VA's dissemination of CBT for depression [74]. The eventual goal is to educate and train VA mental health professionals in EBTs for mental and behavioral health conditions to achieve the widest availability to veterans.

There are smaller scale but substantive recent examples in psychosocial oncology. Clark *et al*. [75] have offered multi-component training, Cognitive Behavior Therapy Skills for Cancer Survivors, for psychologists, social workers, or mental health nurses employed full-time in clinical service provision to patients with cancer. They assessed trainees pre-workshop to post-workshop on CBT knowledge and self-efficacy and found both to improve. Brothers *et al*. [76] offer 3-day training institutes for providers to learn a biobehavioral intervention (BBI) [77]. Multimodal training using adult learning principles [44] includes lecture-style presentations (40%; didactics), role-play and group discussions (20–35%; experiential), and small group and individual practices (25%; practice), with the aim of competency-based training. Significant pre/post-improvements in therapists' knowledge and clinical skill in BBI component delivery ($p < 0.001$), attitudes toward EBTs ($p < 0.01$), and self-efficacy ($p < 0.01$) were found. The theory of planned behavior [78] was used to study trainees' intentions to later implement the BBI. Analyses showed unique contributions of therapists' self-efficacy to use (11%; $p < 0.01$) and attitudes toward BBI (6.6%; $p < 0.05$) in the prediction of their intent to implement (adjusted $R^2 = 0.22$, $p < 0.001$). Data from therapists' supervisors/administrators were also informative. The majority (78%) reported that any implementation challenges would be outweighed by BBI benefits, and supervisors with positive attitudes toward EBTs also reported more benefits than implementation challenges ($p < 0.05$). To aid implementation, therapists received both trainer and peer guidance via conferencing for adapting and implementing the BBI in their setting for 6 months.

In closing, it is noted that two national forces underscore the timeliness and importance of delivery of EBTs to patients with cancer. First, the Commission on Cancer of the American College of Surgeons in 2012 defined the standards for accreditation of cancer clinics [79]. According to Standard 3.2, by 2016, all cancer clinics must monitor and evaluate psychological distress, provide appropriate referrals or psychosocial services to patients with cancer if there is evidence of moderate or severe distress, and document the efficacy of so doing. Second, the American Society of Clinical Oncology 2014 guidelines for management of depression and anxiety in patients with cancer [80] specify the following: 'Psychological and psychosocial interventions should derive from relevant treatment manuals for

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empirically supported treatments specifying the content and guiding the structure, delivery mode, and duration of the intervention.' Taken together, the Commission on Cancer attests to the necessity to address the gap in psychosocial care, and the American Society of Clinical Oncology specifies the mechanisms to do so, making the movement to EBT provision to patients with cancer timely.

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Supporting information

Additional supporting information may be found in the online version of this article at the publisher's web site.

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