Published in final edited form as:

Cogn Behav Pract. 2014 November ; 24(4): 367–371. doi:10.1016/j.cbpra.2014.08.003.

Implementing cognitive behavioral therapy in specialty medical settings

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Abstract

This article is an introduction to the second issue of a two-part Special Series on integrating cognitive behavioral therapy (CBT) into medical settings. The first issue focused on integrating CBT into primary care, and this issue focuses on implementing CBT in other specialty medical settings, including cancer treatment, HIV care, and specialized pediatric medical clinics. Models for treatment delivery to improve ease of implementation are also discussed, including telehealth and home-delivered treatment. The six articles in this series provide examples of how to transport CBT techniques that are largely designed for implementation in outpatient mental health settings to specialized medical settings, and discuss unique considerations and recommendations for implementation.

Keywords

Cognitive behavioral therapy; medical settings; behavioral medicine

As highlighted in the first issue in this Special Series on integrating cognitive behavioral therapy (CBT) into medical settings, there has been significant recent attention regarding the importance of incorporating behavioral health services into primary care. This movement in healthcare has been prompted, in part, because the majority of individuals in the U.S. bring mental health needs to their primary care provider as their first and often only resource (Wang et al., 2005; 2006), and it is estimated that over half of common mental disorders (i.e., depression, anxiety) are addressed in primary care (Bea & Tesar; 2002). As compared with primary care settings, less empirical attention has been given to the incorporation of CBT into specialty medical settings. Yet, there are distinct advantages for CBT delivered in specialized medical settings as compared to solely in mental health settings. Empirical support has accumulated across a range of medical specialties, including but not limited to oncology, gastroenterology, infectious disease, endocrinology, and cardiology, showing that CBT can reduce psychological symptoms and distress, improve quality of life, and improve management of one's condition (e.g., see Crepaz et al., 2008; Drossman et al., 2003; Gulliksson et al., 2011; Ismail, Winkley, & Rabe-Hesketh, 2004; Osborn, Demoncada, & Feuerstein, 2006).

Why CBT in Specialty Medical Settings?

The most common contributors to early mortality in the U.S. are modifiable, behavioral health factors (e.g., smoking, diet and physical activity factors, alcohol use; Mokdad et al., 2004), and across chronic conditions in which individuals would be seeking specialty care, there are behavioral health needs surrounding disease management, medication adherence, and engagement and retention in medical care. CBT delivered in the context of specialty medical care may target psychological symptoms directly (e.g., depression, anxiety), aim to improve overall functioning and quality of life, and/or address the specific cognitive and behavioral components necessary for managing a medical condition.

There is also evidence to suggest that in the context of certain psychosocial comorbidities, improvements in disease management can only be achieved when directly addressed by the intervention. For instance, HIV-infected individuals with co-occurring depressive disorder did not demonstrate improvements in HIV medication adherence from an approach that successfully treated depression (i.e., using antidepressants) but did not address HIV medication adherence (Tsai et al., 2013). An integrated approach combining CBT for adherence with CBT for depression has been shown to improve both mental health and adherence outcomes among patients with HIV (Safren et al., 2009) and diabetes (Safren et al., 2014). In the context of specialty medical settings, CBT may play an important role in addressing both psychological factors and behavioral health needs to maximize response to medical treatment.

In addition to the clinical benefits of incorporating CBT into specialty medical settings, there are also implications for cost-offset, which is central to the sustainability of interventions under new accountable care organization medical plans. Common psychological symptoms such as elevated depressive and anxiety symptoms are associated with greater lengths of inpatient stay and medical care utilization (see Blount et al., 2007 for a review). Addressing behavioral health factors can lead to “medical cost offset,” in that low-cost behavioral health interventions significantly reduce medical costs (Chiles, Lambert, & Hatch, 1999). For instance, medical service utilization can be reduced with psychological intervention; a meta-analysis showed a 90% decrease in medical service utilization following psychological intervention (Chiles et al., 1999). Further, there is evidence that delivery of psychological interventions in the context of medical settings has greater cost-offset results as opposed to delivery of psychological interventions in traditional mental health settings (Chiles et al., 1999). Though cost offset data has not often differentiated CBT from other psychological interventions, overall, findings that psychological interventions in medical settings may reduce medical utilization and costs is reason for further focus on the integration of CBT into medical settings as we enter an age of pay for performance and accountable care reimbursement models.

Implementing CBT in Specialty Medical Settings

In a setting that is already specialized, there may be challenges in introducing another highly specialized approach. As in primary care, the role of a CBT clinician is as an ancillary, rather than principal, care provider. There are also distinct differences in the approach of a

CBT clinician in medical, versus mental health settings. These include but are not limited to the need to balance specialization with generalization, examine outcomes in terms of improved functioning rather than full symptom recovery, and incorporate a multidisciplinary approach to case conceptualization. The primary outcomes when CBT is delivered in the context of medical settings may be a measure of physical health, disease management, or psychological symptoms; this requires flexibility and individuation of the approach, and ongoing consideration of the primary treatment target.

Although there is accumulating evidence regarding the efficacy of CBT approaches in medical settings, there are few practical guides to actual delivery of such interventions in these contexts. For specialty medical settings, there are also few resources that discuss implementation of CBT across medical disciplines. Rather, existing literature in this domain tends to be highly specialized. As such, this special issue aims to provide a hands-on guide across a variety of specialties to inform how to deliver CBT in specialty medical settings and discuss considerations regarding adaptation and delivery. The articles included in this special issue aim to address key questions regarding how to transport CBT approaches largely designed and tested in traditional outpatient mental health settings to the context of specialty medical settings. In this introduction we highlight implementation-related themes that cut across the six articles in this special series, and discuss other issues that readers of *Cognitive and Behavioral Practice* may consider when delivering CBT in a specialty medical settings.

Overview of Articles in Part Two of the Special Series

The articles included in part two of this special series focus on a range of medical populations, age groups, and clinical settings, and here we aim to discuss key differences and commonalities across the articles. Kangas et al. *this issue* describe a CBT protocol for treating anxiety and depressive symptoms among adult patients recently diagnosed with head and neck cancer (HNC) designed to be delivered alongside patients' radiology treatment. Key treatment components are derived from acute stress disorder-focused CBT protocols (Bryant et al., 1998, 1999; 2003) and behavioral activation (BA) for depression (e.g., Hopko et al., 2003; 2005; 2011). Techniques include psychoeducation, progressive muscle relaxation (PMR) and breathing training, cognitive therapy (CT), exposure exercises, and activity scheduling. Also in cancer care, Levin & Applebaum, *this issue* present recommendations for implementing cognitive therapy in the context of acute cancer settings, discussing ways in which treatment delivery is adapted for the acute cancer setting. The focus is on adapting the cognitive model to be specific to challenging cognitive presentations in this population, with a focus on realistic optimism, adaptive thinking and coping. Authors discuss specifically how CT can be used when discussing prognosis and issues around death and dying.

As an example of implementing a group, integrated CBT intervention for depression and HIV medication adherence in the context of an HIV community health center, our team (Magidson et al. *this issue*) present the implementation of a group CBT intervention comprised of behavioral activation and problem-solving based techniques to address depression and HIV medication adherence among individuals living with HIV. Existing CBT interventions to address adherence and depression among individuals living with HIV have

largely been designed and tested as individual treatments for delivery in mental health settings. As such, this work addressed key challenges when adapting existing intervention approaches for delivery in a community health setting, where groups, less frequent visits, and a range of presenting problems are common. The intervention was delivered by a doctoral student and was conducted in a modular, group format that did not rely on sequential session attendance.

Reigada et al. *this issue* describe a CBT protocol developed to address anxiety and disease management among children and adolescents with inflammatory bowel disease (IBD) in a university-affiliated, specialty pediatric gastroenterology medical clinic. The team was composed of mental health staff and consulting gastroenterologists. Key components of the intervention included psychoeducation regarding disease management and the interaction between anxiety and IBD, self-monitoring differentiating disease and anxiety-related physical symptoms, cognitive restructuring for IBD anxiety, illness related exposure exercises, relaxation, and parental support for caring for a child with a chronic medical condition.

Annunziato et al. *this issue* describe the application of CBT techniques for improving adherence to dietary and physical activity guidelines in the treatment of NAFLD using a community-based telehealth approach for assisting families in supporting children with NAFLD. The team of providers consisted of a supervising licensed clinical psychologist, and two graduate student interventionists, and a hepatology nurse and the medical director of Pediatric Liver/Liver Transplant service were available for consultation. The intervention was community-based and primarily delivered using telehealth. Key components focused on promoting physical activity and included self-monitoring, problem-solving strategies, goal-setting, and positive reinforcement strategies.

Finally, Jayasinghe et al. *this issue* present an exposure-based CBT protocol ‘Back on my Feet’ to address anxiety following a traumatic fall among older adults, which focuses primarily on avoidance, physiological arousal, and identifying maladaptive cognitions. The protocol was designed to be implemented once the patient returns home, ideally once the patient has progressed with outpatient physical therapy, by a mental health practitioner with some familiarity with CBT (e.g., psychologist or social worker).

Common Themes across Clinical Examples

Although there are distinct differences in the clinical settings and medical populations focused on in each of these articles, there are also some important common themes regarding how to implement CBT in specialized medical settings.

Flexibility in treatment modality: implications of telehealth for behavioral medicine

Across articles there is a demonstrated need to consider telehealth and flexible treatment delivery based upon medical need and access to care. In particular, there may be a unique role for telehealth (as illustrated by Annunziato et al., *this issue*) for delivering CBT for medical populations both to improve access to care and in the context of medical disability. Muller & Yardley (2011) conducted a meta-analysis and systematic review on the effects of

CBT delivered via telehealth for medical populations, examining studies that assessed the effects of telehealth-delivered CBT on physical health outcomes. Results of the meta-analysis showed that CBT significantly improved physical health outcomes with a small to medium effect size ($d = .23$), and was particularly effective for patients with chronic conditions that were not immediately life threatening. The included studies focused on a range of adult medical populations (lupus, cardiac patients, end stage respiratory disease, rheumatoid arthritis and osteoarthritis, multiple sclerosis, and breast cancer). Components of CBT differed across studies, with some primarily addressing emotion-focused symptoms, and others more focused on physical symptoms and disease management. Although interestingly, effect sizes on physical health outcomes were similar regardless of emotion vs. physical health focus. Interventions were delivered by a masters or doctoral level provider, with only one study using an oncology nurse as the clinician. Overall there were very low attrition rates in these trials (overall pooled rate of 9%), suggesting telehealth for a patient population that is likely to face significant barriers to accessing treatment due to physical health status may be an effective and efficient way to improve retention in CBT.

As another example of accommodating to physical disability using face-to-face therapy, Jayasinghe et al. *this issue* illustrate a home-based CBT protocol for older adults after a fall. Even when the intervention was delivered in-person in the clinical settings, there are examples of flexible delivery. For instance our team (Magidson et al., *this issue*) used a modular format for delivery that did not require regular session attendance due to the numerous barriers to accessing regular care in this population.

Multidisciplinary and ongoing communication

Other themes that arose across articles specific to integrating CBT in a specialty medical setting include the need for a multidisciplinary approach and ongoing communication with specialist providers to inform CBT delivery. For example, Reigada et al. *this issue* discuss how they consulted regularly with gastroenterologists to inform implementation of CBT. Receiving medical consultation to consider ways to adapt the CBT approach based upon disease stage may be crucial. Levin & Applebaum, *this issue*, discuss how understanding prognosis may be central to guiding cognitive restructuring strategies when labeling 'realistic optimism' and the 'tyranny of positive thinking'. Similarly, Reigada et al. *in press* illustrate the importance of differentiating between IBD and anxiety-related physical symptoms, and this is also a scenario in which a multidisciplinary approach would greatly inform the delivery of CBT in this context.

Balancing specificity and generality

In a specialized medical setting, there may be a tendency to overly specialize our approach to CBT. However, here we observe commonality across the CBT techniques employed in a range of medical populations, including psychoeducation, self-monitoring, behavioral activation, problem-solving, exposure exercises, and cognitive restructuring techniques. Emphasizing the commonalities across CBT interventions and focusing rather on the unique considerations for delivery in distinct medical settings may be one way in which we can reduce barriers to integrating CBT into specialty medical settings. Given the increasing emphasis on task shifting mental health care in medical settings (i.e., shifting mental health

care responsibilities to non-mental health specialized providers), focusing on the shared intervention components may be useful to develop a standardized curriculum for training CBT to non-specialist providers working in medical settings. Future studies may consider whether it is feasible to identify a single set of CBT techniques that may cut across the disease management and common psychological problems faced in medical populations – much like a “unified protocol” (Barlow et al., 2010) for behavioral medicine – which may in turn improve the parsimony of implementing CBT in medical settings.

That being said, there are clear differences and considerations across medical conditions and settings that must be taken into account to tailor our clinical approaches. This is evidenced across all of the articles in the *Special Issue* in the ways in which the CBT techniques were tailored to the unique patient populations and clinical settings. Although not specific to CBT, there is some evidence that greater specificity of a behavioral health intervention to a particular medical condition predicts greater cost savings (Blount et al. 2007). Going forward there will be a need to balance specificity of an intervention with generalizability and consideration of training needs for broader dissemination.

Conclusions and Future Directions

In summary, across the articles included in this special issue, we consider the similarities and shared intervention components, yet also key differences in the unique medical needs of each population. For future research, we recommend study of ways in which we can use the knowledge across disciplines to develop a set of CBT techniques most relevant to specialized behavioral medicine settings. Given the increasing emphasis on task shifting and designing platforms for training non-specialist providers, we also encourage in future research a consideration of how to develop a set of techniques that will be parsimonious for training and practice. Although there is overlap in the CBT techniques used across these articles, it may be worth considering if we can identify a single set of techniques that cut across intervention approaches and clinical presentations that may be the basis for training non-mental health providers in specialty medical settings. Additionally, a consideration of medical cost-offset is an important direction for clinical research focusing on implementing CBT in medical settings. Future studies should examine this outcome variable and other indicators of cost effectiveness, as this will be crucial for influencing policy that will support the implementation of such treatments.

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