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Review

Psychological interventions for anxiety in adult primary care patients: A review and recommendations for future research

Robyn L. Shepardson[a,b,*], Laura J. Buchholz[c,d,e], Risa B. Weisberg[f,g,h], Jennifer S. Funderburk[a,b,i]

[a] Center for Integrated Healthcare, Syracuse VA Medical Center, Syracuse, NY, United States
[b] Department of Psychology, Syracuse University, Syracuse, NY, United States
[c] Center for Integrated Healthcare, VA Western New York Healthcare System at Buffalo, Buffalo, NY, United States
[d] Department of Psychology, University at Buffalo/State University of New York, Buffalo, NY, United States
[e] Department of Psychology, University of Tampa, Tampa, FL, United States
[f] VA Boston Healthcare System, Boston, MA, United States
[g] Boston University School of Medicine, Boston, MA, United States
[h] Alpert Medical School of Brown University, Providence, RI, United States
[i] Department of Psychiatry, University of Rochester School of Medicine, Rochester, NY, United States

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ABSTRACT

Anxiety symptoms are prevalent in primary care, yet treatment rates are low. The integration of behavioral health providers into primary care via the Primary Care Behavioral Health (PCBH) model offers a promising way to improve treatment options by adding a team member with the necessary skillset to deliver evidence-based psychological interventions for anxiety. We conducted a narrative review of psychological interventions for anxiety applied within adult primary care settings ($k = 44$) to update the literature and evaluate the fit of existing interventions with the PCBH model. The majority of studies were randomized controlled trials (RCTs; 70.5%). Most interventions utilized cognitive-behavioral therapy (68.2%) and were delivered individually, face-to-face (52.3%). Overall, 65.9% of interventions (58.6% of RCTs, 91.7% of pre-post) were effective in reducing anxiety symptoms, and 83.3% maintained the gains at follow-up. Although it is encouraging that most interventions significantly reduced anxiety, their longer formats (i.e., number and duration of sessions) and narrow symptom targets make translation into practice difficult. Methodological limitations of the research included homogenous samples, failure to report key procedural details, pre-post designs, and restrictive eligibility criteria. We offer recommendations to guide future research to improve the likelihood of successful translation of anxiety interventions into clinical practice.

1. Introduction

Anxiety is one of the most frequent mental health concerns in primary care, with prevalence rates of 15–20% for any current anxiety disorder (Ansseau et al., 2004; Kroenke, Spitzer, Williams, Monahan, & Löwe, 2007). Subthreshold symptoms are at least as, or even more, common than diagnostic-level disorders (Helmchen, & Linden, 2000; Olfson et al., 1996). Anxiety confers an immense burden, including functional impairment and reduced quality of life (Mendlowicz & Stein, 2000; Stein et al., 2005; Beard, Weisberg, & Keller, 2010).

Individuals with anxiety prefer to receive treatment in primary care (Shepardson & Funderburk, 2016) and are indeed more likely to seek treatment in primary care compared to specialty mental health settings (Wang et al., 2005; Young, Klap, Sherbourne, & Wells, 2001). Nonetheless, anxiety is under-treated in primary care, as patients frequently receive either no care or inadequate care, and when they do receive treatment, it is primarily pharmacological (Stein et al., 2004, 2011; Weisberg, Dyck, Culpepper, & Keller, 2007). For example, only 28% of primary care patients with anxiety disorders in one study had received potentially adequate pharmacotherapy or cognitive-behavioral therapy (CBT) at baseline (Weisberg, Beard, Moitra, Dyck, & Keller, 2014); although this rate increased to 69% over the five-year follow-up, adequate pharmacotherapy (60%) was much more common than adequate CBT (36%). Although pharmacotherapy is effective (Bandelow et al., 2012), most primary care patients prefer psychological treatments for anxiety (Lang, 2005; Wetherell et al., 2004), and medication is not optimal for certain subpopulations (e.g., pregnant women, elderly; Bandelow et al., 2012). One solution to increasing the

* Corresponding author at: Center for Integrated Healthcare, 800 Irving Avenue (116C), Syracuse, NY, 13210, United States.
E-mail addresses: Robyn.Shepardson@va.gov (R.L. Shepardson), lbuchholz@ut.edu (L.J. Buchholz), Risa.WeisbergHawkins@va.gov (R.B. Weisberg), Jennifer.Funderburk@va.gov (J.S. Funderburk).

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use of psychological treatments for anxiety in primary care settings is integrated primary care (IPC), in which behavioral health providers (BHPs; e.g., psychologists, social workers) are embedded in primary care teams (Kelly & Coons, 2012; Vogel, Kanzler, Aikens, & Goodie, 2016). BHPs' expertise in delivering psychological treatments, including treatment for anxiety, makes them prime targets to help improve patient engagement and care in primary care settings.

1.1. Integrated primary care

IPC is "care that results from a practice team of primary care and behavioral health clinicians, working together with patients and families, using a systematic and cost-effective approach to provide patient-centered care for a defined population" (Peek & National Integration Academy Council, 2013, p. 2). IPC is thus collaborative, interdisciplinary, and population-based. The two most commonly used models of IPC service delivery with the largest evidence base at this time (Vogel et al., 2016) are care management and primary care behavioral health (PCBH).

Care management typically focuses on a particular condition (e.g., depression) and includes collaboration between a primary care provider (PCP), care manager, and consulting psychiatrist (Hunter & Goodie, 2010; Muntingh, van der Feltz-Cornelis, van Marwijk, Spinhoven, & van Balkom, 2016; Roy-Byrne, 2017). It involves ongoing monitoring of symptoms using structured assessments, often conducted via telephone, while algorithms are used to guide treatment recommendations, including PCP medication management (Hunter & Goodie, 2010; Tew, Klaus, & Oslin, 2010). Recommendations follow stepped care models to maximize efficiency, so the least intensive treatment is provided first, and only those patients who do not respond are advanced to higher intensity treatment as needed (Bower & Gilbody, 2005; Davison, 2000). Numerous large RCTs have demonstrated the effectiveness of care management for anxiety (Roy-Byrne, 2017). A recent review of seven randomized controlled trials (RCTs) found that anxiety care management resulted in a greater reduction (effect size = 0.35) in anxiety symptoms at 12 months compared to usual primary care coordinated by the PCP (Muntingh et al., 2016).

In contrast to care management, the literature on treatment delivered via the PCBH model is less advanced (Hunter et al., 2017; Vogel et al., 2016). In PCBH, BHPs are embedded within primary care to serve as consultants to PCPs, providing assessment and brief intervention (Robinson & Reiter, 2016; Rowan & Runyan, 2005). The BHP and primary care team share the same physical space, medical record, and treatment plan (Hunter & Goodie, 2010). The model is population-based, seeking to improve the functioning and health of all primary care patients (Robinson & Reiter, 2016). Thus, to serve the entire practice, PCBH sessions are ideally brief (15–30 min) in duration and limited in number, with six or fewer sessions per episode of care (Dundon, Dollar, Schohn, & Lantinga, 2011). However, this ideal is often difficult to achieve due to factors including patient complexity, BHP difficulty applying the model, and lack of referral options for specialty care. Several key differences between PCBH and specialty mental health care (Rowan & Runyan, 2005; Strosahl, 1996, 1998) are outlined in Table 1. In the case of patients with anxiety in PCBH, BHPs may conduct functional assessments, provide psycho-education, and deliver brief interventions (e.g., relaxation training) for patients with subthreshold, mild, or moderate severity symptoms, and facilitate referrals to specialty care for those with severe or long-standing symptoms that require more intensive treatment (Shepardson, Funderburk, & Weisberg, 2016).

The PCBH model provides an excellent foundation for the translation of evidence-based psychological interventions into primary care to help meet the unmet treatment needs of primary care patients with anxiety disorders and subthreshold symptoms. Prior reviews on psychological treatments for anxiety found large (d = 1.06) and moderate (d = 0.57) effect sizes for brief CBT adapted for primary care (Cape, Whittington, Buszewicz, Wallace, & Underwood, 2010; Seekles et al., 2013). However, those reviews do not include any studies published after 2010 and defined "brief" as up to 12 sessions, so it is unclear whether the included interventions would be compatible with the PCBH model due to the number of sessions.

Table 1
Differences Between Specialty Mental Health and Primary Care Behavioral Health.

Characteristic	Specialty Mental Health	Primary Care Behavioral Health
Focus of model	Individual health	Population health
Care model	Specialty treatment	Consultation
Type of prevention	Secondary or tertiary	Primary or secondary
Patient severity	Mostly moderate to severe	Full spectrum, including many subthreshold and mild
Goal for patients	Remission of symptoms	Improved functioning
Overall culture	Specialty care	Primary care
Collaboration	Usually none	Primary care provider
Documentation	Separate mental health record	Primary care medical record
Approach to assessment	Full formal diagnostic evaluation	Brief functional assessment of presenting concern
Types of interventions	Traditional psychotherapy	Psycho-education and behavioral skills training
Number of sessions*	12–20	1–6
Duration of sessions*	50 min	15–30 min
Frequency of sessions*	Weekly or biweekly	Every 2, 4, or 6 weeks
Location	Separate mental health clinic	Primary care clinic

Note. Content summarized from Rowan & Runyan, 2005; Strosahl, 1996, 1998. *These can vary depending on patient and condition, but we present typical norms.

1.2. Purpose of review

The purpose of this narrative review was to summarize the literature on psychological interventions for anxiety that have been applied within adult primary care settings. We describe characteristics of existing interventions, including target symptoms (e.g., anxiety broadly, specific anxiety disorder) and format (e.g., number and duration of sessions) to evaluate how compatible they are with the PCBH model. We also summarize the results of these studies to evaluate intervention effectiveness. Our findings will help to inform BHPs' clinical practice by identifying which interventions have empirical support and are also brief and feasible to deliver within the PCBH model. Moreover, our findings will help direct future research by offering recommendations to guide the development and evaluation of interventions to better match the needs of real-world primary care patients and clinics, and improve the likelihood of successful translation into clinical practice.

2. Method

2.1. Selection criteria

2.1.1. Inclusion criteria

Studies were included if they: (a) were written in English, (b) were published in peer-reviewed journals between January 1990 and December 2016, (c) sampled adult (age 18 or older) primary care patients, (d) reported on a psychological (i.e., non-pharmacological) treatment for anxiety (as defined below), and (e) included an anxiety threshold as an inclusion criterion (e.g., meeting diagnostic criteria for an anxiety disorder, scoring above a clinical cutoff on an anxiety symptom measure). We limited this review to interventions that sampled adult primary care patients with at least a minimal level of anxiety to best capture the population of interest. We focused on anxiety symptoms captured by Diagnostic and Statistical Manual-5 (DSM-5) anxiety disorders (American Psychiatric Association [APA], 2013), and thus did not include interventions that exclusively targeted posttraumatic stress disorder (Friedman, 2013) or obsessive-compulsive