

EVALUATING KNOWLEDGE AND BARRIERS TO THE USE OF COGNITIVE  
BEHAVIORAL THERAPY BY NURSE PRACTITIONERS IN THE TREATMENT OF  
DEPRESSION AND ANXIETY IN PRIMARY CARE

by

Delia Mary Hearn Story

---

A Practice Inquiry Project Submitted to the Faculty of the

COLLEGE OF NURSING

In Partial Fulfillment of the Requirements  
For the Degree of

DOCTOR OF NURSING PRACTICE

In the Graduate College

THE UNIVERSITY OF ARIZONA

2014

THE UNIVERSITY OF ARIZONA  
GRADUATE COLLEGE

As members of the Practice Inquiry Project Committee, we certify that we have read the practice inquiry project prepared by Delia Mary Hearn Story entitled “Evaluating Knowledge and Barriers to the Use of Cognitive Behavioral Therapy by Nurse Practitioners in the Treatment of Depression and Anxiety in Primary Care” and recommend that it be accepted as fulfilling the practice inquiry project requirement for the Degree of Doctor of Nursing Practice.

\_\_\_\_\_  
Date: July 29, 2014  
Janet C. DuBois, DNP, CNE, ANP, FNP-BC, FAANP  
Clinical Assistant Professor

\_\_\_\_\_  
Date: July 29, 2014  
Audrey Russell-Kibble, DNP, FNP-C  
Clinical Assistant Professor

\_\_\_\_\_  
Date: July 29, 2014  
Emina Foci, DNP, PMHNP  
Committee Member

Final approval and acceptance of this practice inquiry project is contingent upon the candidate’s submission of the final copies of the practice inquiry project to the Graduate College.

I hereby certify that I have read this practice inquiry project prepared under my direction and recommend that it be accepted as fulfilling the practice inquiry project requirement.

\_\_\_\_\_  
Date: July 29, 2014  
Practice Inquiry Project Director: Janet C. DuBois, DNP, CNE, ANP, FNP-BC, FAANP  
Clinical Assistant Professor

## STATEMENT BY AUTHOR

This practice inquiry project has been submitted in partial fulfillment of requirements for an advanced degree at The University of Arizona and is deposited in the University Library to be made available to borrowers under rules of the Library.

Brief quotations from this practice inquiry project are allowable without special permission, provided that accurate acknowledgment of source is made. Requests for permission for extended quotation from or reproduction of this manuscript in whole or in part may be granted by the head of the major department or the Dean of the Graduate College when in his or her judgment the proposed use of the material is in the interests of scholarship. In all other instances, however, permission must be obtained from the author.

SIGNED: Delia Mary Hearn Story

## ACKNOWLEDGMENTS

I want to acknowledge my committee members, Dr. Janet DuBois, Dr. Audrey Russell-Kibble, and Dr. Emina Foci, for their support and encouragement in completing this practice inquiry. I especially want to thank Dr. Janet DuBois for her academic, professional, and personal guidance; she never failed to fill my sails with hope when I felt like I had foundered. I also want to thank Dr. Audrey Russell-Kibble for being a sea of calm in the hurricane of activity that was the completion of my PI process and Dr. Emina Foci for being willing to dive into the role of DNP/PI committee member.

## DEDICATION

I want to dedicate this Practice Inquiry to Mog, for always making sure I had the things that really mattered most in life (family, love, and fun), and for showing me, by example, that no aspiration is out of reach.

*“If you have built castles in the air, your work need not be lost; that is where they should be.*

*Now put foundations under them.” – Henry David Thoreau*

## TABLE OF CONTENTS

ABSTRACT.....	7
<b>INTRODUCTION.....</b>	<b>8</b>
<b>Background Knowledge .....</b>	<b>8</b>
<b>Review of the Literature.....</b>	<b>9</b>
<b>CBT in the Primary Care Setting.....</b>	<b>9</b>
<b>Barriers to the Utilization of CBT within the Primary Care Setting.....</b>	<b>16</b>
<b>Conceptual Framework.....</b>	<b>19</b>
<b>Problem Statement.....</b>	<b>19</b>
<b>Intended Improvement.....</b>	<b>20</b>
<b>Study Questions.....</b>	<b>20</b>
<b>METHODS .....</b>	<b>20</b>
<b>Ethical Issues .....</b>	<b>20</b>
<b>Setting and Population .....</b>	<b>21</b>
<b>Study Design .....</b>	<b>21</b>
<b>Questionnaire .....</b>	<b>21</b>
<b>Analysis .....</b>	<b>23</b>
<b>RESULTS .....</b>	<b>23</b>
<b>Outcomes .....</b>	<b>23</b>
<b>Description of the Sample .....</b>	<b>23</b>
<b>Results .....</b>	<b>23</b>
<b>DISCUSSION .....</b>	<b>25</b>
<b>Summary.....</b>	<b>25</b>
<b>Limitations.....</b>	<b>30</b>
<b>Conclusions.....</b>	<b>31</b>
APPENDIX A: THE UNIVERSITY OF ARIZONA IRB APPROVAL.....	32
APPENDIX B: QUESTIONNAIRE .....	34
APPENDIX C: LITERATURE REVIEW GRID.....	38
REFERENCES .....	44

## ABSTRACT

Depressive and anxiety disorders are the most commonly encountered mental health problems seen in the primary care setting; they represent a serious public health concern, and are inordinately time consuming for the primary care provider. Cognitive behavioral therapy (CBT) is an effective tool for the treatment of both depression and anxiety, and can be delivered in a variety of abbreviated forms appropriate for use in the primary care setting. Despite its apparent benefits, few primary care providers report using CBT in their practices. The purpose of this project was to develop a better understanding of provider knowledge and perceived barriers regarding the use of CBT for the treatment of depression and anxiety in the primary care setting. A better understanding of practitioners' knowledge of CBT and their perceived barriers to its use will establish a baseline for further exploration of the issue, and will help guide the development of strategies to address the gap in practice. A brief questionnaire was provided to a convenience sample of Nurse Practitioners (NP) during a regular meeting of the Southern Arizona Advanced Practice Nurse/Nurse Practitioner Society. The results of the data analysis showed that 90% of the sampled NPs considered themselves to be skilled in detecting depression and anxiety in their patients, and 80% were confident in their abilities to treat patients with these disorders. However, only 30% of sampled NPs currently use CBT in their practices. The sample indicated a broad lack of knowledge related to multiple aspects of CBT including technique, training, implementation, and reimbursement. Education and training were revealed to be the strongest predictors of willingness to use CBT. Only 30% of NPs were introduced to the use of CBT in their NP programs. The results suggest that increased education in the proper technique, process, and billing methods for CBT may contribute to greater utilization by NPs in the primary care setting.

## **INTRODUCTION**

### **Background Knowledge**

Depression and anxiety, both separately and in combination, represent a serious public health concern. The overall lifetime risk of experiencing any mood disorder is as high as 31% (Hoifodt, Strom, Kolstrup, Eisemann & Waterloo, 2011). Taken together, depressive and anxiety disorders have a prevalence of greater than 10% among the majority of Western countries (Cape, Whittington, Buszewicz, Wallace & Underwood, 2010). These mental health (MH) disorders contribute, directly and indirectly, to the social and economic burden through decreased work performance, increased work absenteeism, frequent primary care office visits, and increased disability (Carta et al., 2012; Hoifodt et al., 2011). Moreover, in addition to being disabling and costly, these conditions are frequently associated with other psychiatric and physical health problems and contribute to a reduced quality of life (Calleo et al., 2013; Carta et al., 2012; Davidson, Feltner & Dugar, 2010). Mental health disorders are inordinately time consuming for the primary care provider (PCP), accounting for up to 30% of primary care consultations (Hoifodt et al., 2011) and between 26% and 50% of provider time during primary care visits (Collins, Wolfe, Fishman, DePace & Steele, 2006). Anxiety disorders, including generalized anxiety disorder (GAD), panic disorder (PD), social anxiety disorder (SAD), and post-traumatic stress disorder (PTSD), as well as depression are the most commonly encountered health problem seen in the primary care setting (Rose et al., 2011). Cognitive behavioral therapy (CBT) is a type of mental health counseling characterized by a structured and time-limited process, in which the patient and health care provider work together to identify and change dysfunctional thinking and non-adaptive behaviors experienced by the patient in order to alleviate that patient's problematic symptoms (Hoifodt et al., 2011). Cognitive behavioral therapy (CBT) is an

empirically validated, effective method for the treatment of multiple mental health disorders, including anxiety and depression (Hopko, 2013; Blane, Williams, Morrison, Wilson & Mercer, 2013). Moreover, CBT has been well established as an evidence-based treatment for depression and anxiety in the primary care setting (Possemato, 2011) and is recommended as a first-line treatment option in the United Kingdom (UK) (National Institute for Health and Clinical Excellence [NICE], 2009; Ridgway & Williams, 2011). Evidence based CBT treatments for depression and anxiety that have been specifically designed for use in the primary care setting are available to PCPs (Possemato, 2011). Despite strong evidence supporting its use, CBT is not being widely utilized by PCPs in the primary care setting (Blashki, Parsons, Morgan, Hickie & Davenport, 2003; Hoifodt et al., 2011; Blane et al., 2013). Moreover, few studies have been published on the use of CBT in the primary care setting (Blashki et al., 2008) and there is limited evidence available regarding PCPs perceptions on the use of CBT in the primary care setting (Pierce & Pearce, 2003).

## **Review of the Literature**

### **CBT in the Primary Care Setting**

When managing mental health disorders, behavioral treatments often produce better long-term outcomes than treatment with medication alone (Robinson & Strosahl, 2009), and significant proportions of patients prefer psychological therapies to psychotropic medications if possible (Blashki, Richards et al., 2003; Hoifodt et al., 2011; Robinson & Strosahl, 2009). Cognitive behavioral therapy is an empirically validated, effective method for the treatment of multiple mental health disorders, including anxiety and depression (Hopko, 2013; Blane et al., 2013). Cognitive behavioral therapy has been well established as an evidence-based treatment for depression and anxiety in the primary care setting (Possemato, 2011), and is recommended as

a first-line treatment option in the UK (NICE, 2009; Ridgway & Williams, 2011). Moreover, evidence based CBT treatments for depression and anxiety that have been specifically designed for use in the primary care setting are widely available to PCPs (Possemato, 2011). Abbreviated methodologies of CBT can be easily taught and utilized within a limited time frame, and outcomes can be evaluated objectively, making it an attractive option for healthcare administrative bodies and insurers (Cowap, 2004). With respect to the treatment of depression in the primary care setting, CBT has been shown to have efficacy comparable to pharmacotherapy (McNaughton, 2009), and treatments that combine both pharmacological and psychological components have been shown to have the greatest long-term effect (Carta et al., 2012). In general, the questions surrounding CBT as a treatment for anxiety and depression do not involve its efficacy in terms of outcomes or its effectiveness in terms of generalizability to the population at large, but rather its feasibility for use in the primary care setting (Espie, 2009).

Although research on the uses of CBT in the primary care setting is ongoing, CBT is used most frequently and effectively by PCPs for the management of multiple anxiety and depressive disorders (Harden, 2012). There is considerable variation among reports concerning which of the two conditions is encountered with the greatest frequency, however, it is within the primary care setting that treatment for both anxiety and depression most often takes place (Craske et al., 2009; Collins et al., 2006; Davidson, Feltner & Dugar, 2010; Joesch et al. 2011; McNaughton, 2009; Mohr et al., 2012; Oyama, Burg, Fraser & Kosch, 2012). Within the primary care setting, cognitive behavioral therapy for anxiety is most effective when specific anxiety disorders are treated individually (Craske et al., 2009). Anxiety disorders treated with CBT in the primary care setting include generalized anxiety disorder (GAD), panic disorder (PD), social anxiety disorder

(SAD), and post-traumatic stress disorder (PTSD) (Craske et al., 2009; Joesch et al., 2011; Roy-Byrne et al., 2009).

The primary care setting has been established as an important initial contact for patients suffering from mental health problems (Collins et al., 2006; Johnson, 2007), as the majority of mental health problems are initially identified in the primary care setting (Robinson & Strosahl, 2009). According to Craske et al. (2009), the primary care setting is where most patients suffering from anxiety disorders receive their mental health care. According to a review by Hoifodt et al. (2011) the majority of patients who present to primary care with a mental health problem will receive “most or all” (p. 490) of their mental health care in that setting. A number of factors appear to be associated with this phenomenon. Patients with mental health disorders such as anxiety and depression are likely to present as complex cases (Newby et al., 2013; Carta et al., 2012; Robinson & Strosahl, 2009) and frequently involve comorbid medical conditions (Mewton, Wong & Andrews, 2012). These patients are most likely to present first to their PCP for care (Kyrios, Moulding & Nedejkovic, 2011; Possemato, 2011). Anxiety in particular is associated with somatic symptoms such as headache, chest pain, GI problems, or insomnia that are likely to precipitate a visit to the PCP (Edelman & Blashki, 2007). Possemato (2011) notes that patients with PTSD most often present first to the primary care setting. Patient preference also plays a role in the treatment of mental health disorders within the primary care setting. Largely, patients prefer to be treated for their MH conditions by their PCPs (Blashki, Parsons et al., 2003; Hoifodt et al., 2011), with the elderly and adolescent age groups in particular most likely to seek help from their PCP (Carta et al., 2012). Moreover, limited access, high cost, and stigma are all obstacles cited by patients as being associated with obtaining specialized mental health care outside the primary care setting (Mohr et al., 2012). According to Mohr et al. (2012),

as many as 75% of primary care patients with mental health problems reported such obstacles. Consistent with studies that show evidence of improved quality of life with psychological counseling, Carta et al. (2012) showed that CBT administered in the primary care setting improves quality of life in patients with depression. For patients with problems necessitating more intensive management, CBT in the primary care setting may be appropriate for the interim management of patient's MH problems while they await mental health care with a specialist (Harden, 2012)

The literature reveals a wide variety of personnel delivering CBT within the primary care setting; this reflects epistemological differences in the studies themselves and addresses broader methodological questions about how best to deliver CBT within the primary care setting. Moreover, definitions of what constitutes a "primary care" setting vary among studies, according to each study's country of origin. Novice counselors, including volunteers with a Baccalaureate education, are able to effectively treat anxiety using CBT techniques (Calleo et al., 2013; Joesch et al., 2011; Brown et al., 2012). Within the United States Veterans Administration (VA) healthcare system, behavioral health specialists at the primary care level include social workers and psychiatric nurses as well as psychologists (Dundon, Dollar, Schohn & Lantinga, 2011). In the United Kingdom a range of professionals other than psychologists and psychiatrists may provide primary mental health care services. The list of providers includes general practitioners, Community Mental Health Nurses, social workers, counselors, and Approved Mental Health Workers (National Health Service [NHS], 2014). Graduate psychologists and licensed psychiatrists are reserved for treatment at the secondary level of care, and are accessed via referral (Espie, 2009).

A systematic review by Huibers, Beurskens, Bleijenberg and Schayck (2003) revealed both limited and conflicting evidence regarding the effectiveness of CBT as provided by PCPs. Overall, however, this literature review reveals broad consensus that CBT can be effectively delivered in a primary care setting, by clinicians with differing backgrounds and varying levels of experience and training, in the treatment of a range of anxiety and depressive disorders.

Formal CBT offers a comprehensive approach to the treatment of mental health disorders that requires highly specialized training; it is typically conducted in hour-long sessions, over the course of 12-20 weeks. This type of treatment would not be feasible for most primary care providers, given the time-limited environment prevalent in today's primary care practices (Espie, 2009; Hopko, 2013; Blane et al., 2013). However, CBT has several characteristics that facilitate its adaptation for use as a brief intervention suitable for the primary care setting. As a process, it is both structured and time-limited; in addition, it puts the burden of effort on the patient through the use of 'homework' assignments (Possemato, 2011; Hoifodt et al., 2011; Davidson, Feltner & Dugar, 2010).

There are numerous, abbreviated versions of CBT that are appropriate for use in the primary care setting (Blane et al., 2013). 'Cognitive Behavioral Strategies' are circumscribed psychological skills that can be incorporated into general practice (Blashki, Richards et al., 2003). 'Focused psychological strategies' are evidence-based psychological therapies in the form of specific mental health treatments that have been adapted for use by PCPs in the primary care setting (Blashki, Parsons et al., 2003; Blashki et al., 2008). Focused psychological strategies appropriate for the primary care setting include behavioral techniques such as stress management, graded exposure, structured problem solving and cognitive restructuring (Blashki, Parsons et al., 2003). Cognitive behavioral therapy treatments may also be provided in a

manualized form involving 60-minute sessions delivered by PCPs who have received specialized training; such programs have been shown to be effective in the treatment of PTSD (Possemato, 2011). Modular interventions allow customization of treatments according to the presenting problem and the patient's preferences; this type of treatment has been effectively used in the primary care setting for the treatment of anxiety (Calleo et al., 2013).

Other abbreviated methodologies include self-help modalities such as bibliotherapy and computer CBT that may or may not include provider support (Blashki, Parsons et al., 2003; McNaughton, 2009). Therapist-guided self-help programs are appropriate for the primary care setting, and have been shown to produce short and long term outcomes equivalent to focused individual therapy in the treatment of anxiety and mild to moderate levels of depression (Hoifodt et al., 2011). These treatments are effective when provided in one to two sessions a week over the course of eight to ten weeks, with as few as two hours of provider support (Blane, et al., 2013; Andrews, Cuijpers, Craske, McEvoy & Titov, 2010; Possemato, 2011; Ridgway & Williams, 2011). Although self-help CBT is a technique well suited to primary care applications, outcomes are improved significantly with the addition of provider support (Blane et al., 2013; Gellatly et al., 2007; McNaughton, 2009; Newby et al., 2013; Ridgway & Williams, 2011). Computer-based CBT delivered in the primary care setting has been shown to be effective in the treatment of GAD, PD, SAD, and PTSD when completed with provider support (Craske et al., 2009), as well as when completed independently (Mewton, Wong & Andrews, 2012). Computer-based CBT is also effective in the treatment of co-morbid anxiety and depression (Newby et al., 2013). Telephone delivery of CBT has been shown to be effective in the treatment of anxiety (Calleo et al., 2013) and depression (Mohr et al. 2012) and phone contact is associated with reductions in attrition (Mohr et al. 2012).

Brief interventions are well accepted by patients and providers alike, and have been established as effective in the treatment of both anxiety and depression when delivered in the primary care setting (Calleo et al., 2013; Possemato, 2011). However, there is still some debate with respect to the efficacy of abbreviated forms of CBT as compared to standard CBT; some studies show effect sizes for abbreviated treatments of both anxiety and depression as being comparable to those seen with standard CBT treatments (Cape et al., 2010; McNaughton, 2009). By contrast, Cape et al. (2010) observed that, for depression, the effect sizes found with abbreviated treatments were smaller than those found following treatment with standard CBT.

In addition to methodological considerations, it is important to examine organizational factors associated with the use of CBT in the primary care setting, as these will impact utilization. With respect to the management of mental health problems by PCPs, collaboration and referral are important tools (Johnson, 2007; Edelman & Blashki, 2007), and ongoing clinical supervision by specialist psychiatrists or psychologists is recommended for all PCPs managing MH conditions in primary care (Blashki, Parsons et al., 2003; Edelman & Blashki, 2007; Murrphy & Byrne, 2005). There are numerous models of collaborative care which differ in terms of the types of care administered by each provider, and the point at which referral is indicated. Collaborative care models attempt to address issues that accompany the management of mental health disorders, such as lack of access to a mental health specialist, stigmatization and the resultant drop-out associated with referral to a mental health specialist, low detection rates of mental health disorders, and fragmentation of care (Beehler & Wray, 2012). In one variation of collaborative care, patients remain under the care of a PCP and receive all of their health care, physiological and psychological, at that same practice location. However patient care is managed collaboratively with a mental health specialist who is onsite and acts in the dual roles of

consultant to the PCP and mental health care provider to the patient (Craske et al., 2009; Robinson & Strosahl, 2009). Alternatively, the Collocated Collaborative Care (CCC) model adopted by the VA specifies that the PCP hand off patients to an embedded behavioral health specialist upon identification of the mental health disorder (Beehler & Wray, 2012). Randomized controlled trials (RCT) of various collaborative care models continue to confirm improved clinical outcomes as well as cost effectiveness (Runyan, Robinson & Gould, 2013). Effectiveness studies support a collaborative care strategy for the delivery of CBT in the primary care setting (Craske et al., 2009; Morriss, 2012). Numerous studies have shown the efficacy of collaborative care in the management of depression (Joesch et al., 2011). Although anxiety disorders are as costly and disabling as depression, and are encountered with greater frequency in the primary care setting, few studies have examined collaborative care in the management of these disorders (Joesch et al., 2011).

Stepped care has also been proposed as a feasible and cost effective approach to CBT in the primary care setting (Espie, 2009; Ridgway & Williams, 2011). Stepped care establishes a hierarchy of care levels, with incrementally increasing degrees of therapist participation and skill level, and parallel incremental increases in cost according to the severity of the presenting mental health problem. Patients might begin with self-administered CBT, and proceed through technician guided “manualized,” computer CBT, or small group CBT, culminating with a tertiary referral for care with a specialist (e.g., a sleep specialist in a sleep center) (Hermanns et al., 2012; Espie, 2009).

### **Barriers to the Utilization of CBT within the Primary Care Setting**

The number of appropriately trained and licensed mental health professionals currently available is not adequate to meet existing mental health needs (Blane et al., 2013; McNaughton,

2009; Mohr et al., 2012; Possemato, 2011; Robinson & Strosahl, 2009; Zowie, Middlemass & Siriwardena, 2013), leaving a treatment gap of as much as 50% between those in need of treatment for their MH disorders and those who actually receive it (Johnson, 2007; Kyrios, Moulding & Nedejkovic, 2011; Murrphy & Byrne, 2005; Ridgway & Williams, 2011). Although PCPs are, as previously observed, well positioned to lessen this treatment gap, a number of barriers interfere. Barriers to the treatment of mental health problems in the primary care setting reflect problems in the areas of both provider and policy.

Lack of education and training represent the primary barriers to the management of mental health problems in the primary care setting. Additional training in mental health disorders has been identified by PCPs as one area in which they wish they had received more education while in school (Agency for Healthcare Research and Quality [AHRQ], 2012). Lack of education and training in mental health problems contributes to decreased detection rates of mental health disorders (Collins et al., 2006; Johnson, 2007; Murrphy & Byrne, 2005; Robinson & Strosahl, 2009). Hesitation on behalf of PCPs to utilize CBT techniques could also reflect the dearth of studies specifically studying the efficacy of CBT as delivered by PCPs (Blashki, Richards et al., 2003; Blashki et al., 2008). Dissemination of evidence based treatment modalities for CBT is a problem in primary care (Rose et al., 2011), and providers express a limited knowledge of the effectiveness of CBT in the treatment of mental health disorders. According to Rose et al. (2011), anxiety disorders are poorly recognized by PCPs, and once identified, the use of CBT is infrequent.

While training in CBT techniques leads to increased competency (Blashki et al., 2008; Murrphy & Byrne, 2005) and has been shown to be a significant predictor of outcomes in anxiety treatments (Brown et al., 2012; Grey, Salkovskis, Quigley, Clark & Ehlers, 2008; Murrphy &

Byrne, 2005), formal training methods for CBT are generally intensive and time consuming, making them inappropriate for use by PCPs (Rose et al., 2011). Moreover, there is a paucity of research into methods for effectively training PCPs in the use of CBT (Rose et al., 2011). Nevertheless, research has demonstrated that unskilled providers with no previous experience in CBT can be effectively trained to treat anxiety disorders in the primary care setting (Calleo et al., 2013; Rose et al., 2011; Hoifodt et al., 2011). Counselors with as few as 4.5 hours of training were able to effectively treat anxiety using CBT techniques (Arroll & Moir, 2010; Calleo et al., 2013). In fact, according to Brown et al. (2012), when compared to experienced therapists, those with less prior clinical experience achieved clinical competency more easily (Collins et al., 2006; McNaughton, 2009; Zowie, Middlemass & Siriwardena, 2013).

Problems related to reimbursement for the treatment of mental health problems within the primary care setting contribute significantly to the treatment gap. Insurers within the United States and the United Kingdom are not responding to the current evidence in support of treatment for a range of mental health services in the primary care setting (Joesch et al., 2011). The current system of reimbursement in these countries does not support the delivery of mental health care services in the primary care setting, effectively limiting the use of CBT by PCPs (AHRQ, 2012; Joesch et al., 2011; Morriss, 2012; Robinson & Strossahl, 2009). By contrast, many other countries support the utilization of CBT for the treatment of mental health problems within the primary care setting. For example, reimbursement systems that support collaborative mental health care exist in Germany and some parts of Spain; these systems provide reimbursement to PCPs for treatment of mental health problems as well as payment to mental health providers for supervision of and collaboration with PCPs who are providing treatment for mental health problems in the primary care setting (Morriss, 2012). Reimbursement systems in

Australia support the delivery of CBT by PCPs who have received appropriate training and are certified as CBT providers. In the Australian healthcare system, PCPs are considered to be a fundamental component of the mental health workforce (Blashki, Parsons et al., 2003)

Organizational barriers also limit the integration of mental health services into the primary care setting (Joesch et al., 2011). The fragmented system of healthcare in the United States does not support team-based models of care; neither mental health providers nor PCPs are trained to work collaboratively (AHRQ, 2012).

### **Conceptual Framework**

For the purpose of this study it was proposed that a better understanding of the underlying knowledge, attitudes, and beliefs of PCPs with respect to the use of CBT to treat depression and anxiety in the primary care setting would illuminate potential interventions aimed at increasing the use of CBT by those practitioners. The Theory of Planned Behavior (TPB) was used to understand the relationship between providers' behaviors and the underlying psychological determinants of those behaviors (Polit & Beck, 2012). The concepts incorporated into this study include knowledge related to the use of CBT in the primary care setting, willingness to use CBT, and perceived barriers to the use of CBT. Guided by the TPB model, this study assumed that PCPs behavior regarding the use of CBT was influenced by their beliefs about the treatment, attitudes toward the treatment, and perceptions of barriers to using the treatment.

### **Problem Statement**

Despite strong evidence in support of its use, CBT is not being widely utilized by PCPs in the primary care setting. This underutilization is contributing to a significant treatment gap between those in need of treatment for depressive and anxiety disorders and those who actually

receive treatment. In addition, PCPs are spending an inordinate amount of their time addressing mental health related conditions (Blashki, Parsons et al., 2003; Hoifodt, et al., 2011; Mercer, 2013).

### **Intended Improvement**

To begin to address the problem of underutilization, it was first necessary to develop an understanding of PCP knowledge regarding the uses of CBT in the primary care setting and the perceived barriers contributing to its underuse. Information was collected via a brief questionnaire, provided to a convenience sample of nurse practitioners (NPs) that was analyzed to develop a better understanding of the nature of the problem. A better understanding of NPs knowledge of CBT and their perceived barriers to its use establishes a baseline for further exploration of the issue, and helps guide the development of strategies to address the existing gap in practice.

### **Study Questions**

The purpose of this study was to: 1) determine the extent to which NPs understand the uses of CBT; 2) establish whether NPs consider CBT to be a tool that is appropriate for the treatment of depression and anxiety disorders in the primary care setting; 3) determine whether NPs are willing to use CBT in their primary care practices; and 4) identify barriers that are limiting NP use of CBT.

## **METHODS**

### **Ethical Issues**

The privacy of the subjects was protected during the recruitment process by not asking for any personal or identifying information when potential subjects were offered the opportunity

to participate. There were no known physical, psychological, social, legal, and or economic risks associated with answering the questions on the questionnaire (Appendix B).

### **Setting and Population**

A convenience sample of 20 licensed NPs was recruited from the pool of Nurse Practitioners who were in attendance at the regularly scheduled May 15, 2014 meeting of the Southern Arizona Advanced Practice Nurse/Nurse Practitioner Society in Tucson, Arizona. Inclusion criteria consisted of Adult, Geriatric, and Family Nurse Practitioners. Exclusion criterion consisted of Acute Care Nurse Practitioners.

### **Study Design**

This was a nonexperimental study consisting of data collection via questionnaire; there was no manipulation of an independent variable.

### **Questionnaire**

Data was collected via a structured, self-administered questionnaire (Appendix B), using pencil and paper format. The questionnaire consisted of basic demographic information including gender, age, practice specialty and years in practice, in addition to 27 questions rated according to a five-point Likert scale. Questions were selected intentionally to reflect the latent variables they were designed to measure (Appendix B).

Sources used in developing an item pool for the questionnaire included existing instruments, in-depth qualitative research, and literature reviews (Polit & Beck, 2012) (Appendix C).

According to a qualitative analysis conducted by Kramer and Burns (2008), there are four categories of variable that influence implementation of CBT: consumer, clinician, intervention, and organization/environment. Since the current study was concerned with provider-related

variables, the survey tool for the study focused only on the last three categories. The study by Kramer and Burns (2008) provided numerous examples of statements in each of the identified categories. Within the category of clinician, topics included openness to the use of CBT, caseload mix, coping skills, competence, and learning style; within the category of intervention, the topics included effectiveness, complexity, training tools, compatibility and adaptability; within the category of organization, topics included learning environment, resources, target population, morale, retention, and leadership; within the category of external environment topics included opportunities and competing requirements.

Pierce and Pearce (2003) conducted a study for which they developed a questionnaire to assess rural PCP's understanding and expectations related to CBT. Questions from this study fell into the categories of: aims of using CBT, value of using CBT, consultation time concerns, confidence in management of mental health issues, and Interaction with patients in the context of using CBT. Survey questions within these categories fit nicely within the categories described by Kramer and Burns (2008): aims and value of using CBT fall into the category of intervention, consultation time concerns fall into the category of environment and organization, and confidence in the management of mental health issues falls into the category of clinician.

Further guidance for the selection of items used in the questionnaire came from the conceptual framework for this study. According to Ajzen (2006) an understanding of the fundamental cognitive foundations of the research participants can be achieved through the measurement of beliefs. By measuring participant attitudes, opinions, and beliefs related to the use of CBT, the data from this study may serve as the foundation for future programs of behavioral intervention.

External review of the questionnaire was completed by three experts in the area of CBT to establish content validity at the face-value level. Including only primary care NPs with practice specialties of Family Practice or Gerontology in the sample fostered external validity.

### **Analysis**

Data analysis was completed using SPSS version 21.0 and included the reporting of percentages and trends to describe the results.

## **RESULTS**

### **Outcomes**

#### **Description of the Sample**

The sample was comprised of 20 NPs; 95% were females (n=19), and 5% were male (n=1). The mean age of the sample was 47.6 years with a range of 27 to 64 years. The mean number of years in practice was 8.25 with a range of 1 to 20 years. Practice specialties included family and geriatrics; 70% of the subjects specialized in family practice and 30% specialized in geriatric practice.

#### **Results**

Practitioners consistently rated themselves highly with respect to the skills required for managing depression and anxiety in the primary care setting. Some 90% of the respondents indicated that they felt skilled in detecting depression and anxiety in their patients and 80% indicated that they were confident in their abilities to help patients with these disorders.

The sample demonstrated a broad lack of knowledge regarding aspects of CBT related to training and implementation within the primary care setting. Some 55% of respondents indicated that they were unsure whether or not learning to use CBT was difficult, 50% were unsure whether the CBT process was too time consuming for the primary care setting, and 60% were

unsure whether the use of CBT would slow things down and interfere with productivity. Additionally, the majority of respondents were unsure whether or not leadership personnel in their practices would support the use of CBT in the treatment of depression and anxiety. The high degree of uncertainty related to the use of CBT may reflect the fact that only 30% of respondents indicated that they were introduced to the use of CBT in their NP programs.

A robust majority of respondents indicated that they would be willing to learn CBT at this time. Education was revealed as the strongest predictor of willingness to use CBT; the majority of respondents indicated that they would be willing to use CBT if they had more education and training in the use of it. Other strong predictors of willingness to use CBT included dedicated time on the work schedule and support of practice leadership. Adequacy of reimbursement was the weakest predictor of willingness to use CBT.

Only 30% of respondents indicated that they currently use CBT in the management of some conditions as part of their professional practice. Although this percentage is the same as the number of NPs who were introduced to CBT in their programs, it is not the case that introduction to CBT in a program equates to utilization of CBT in practice. Of those who were introduced to CBT in their NP programs, only half reported that they currently use CBT in the treatment of their patients. Similarly, of those who currently use CBT in their practice, half were not introduced to CBT in their programs.

The majority of respondents indicated that they were unsure whether or not they considered CBT to be effective as a treatment for depression and anxiety as delivered in the primary care setting. When questioned as to whether the efficacy of CBT delivered in the primary care setting was clearly supported by research studies, fewer than half agreed.

The sample showed a near universal lack of understanding related to billing and reimbursement for treatment with CBT in the primary care setting. In addition 100% of the respondents indicated that they did not understand how to bill properly to obtain reimbursement for the use of CBT, and the majority were unsure whether or not they would be reimbursed for the use of CBT, even given the utilization of proper billing techniques.

## **DISCUSSION**

### **Summary**

According to TBP, gaining an understanding of individuals' attitudes, opinions, and beliefs will illuminate potential interventions aimed at influencing future behavior (Ajzen, 2006). This idea is consistent with the conceptual framework of this study, which suggests that PCP behavior regarding the use of CBT to treat patients with depressive and anxiety disorders is influenced by their beliefs about the treatment, attitudes toward the treatment, and perceptions of barriers to using the treatment. As described previously, there is abundant research into the efficacy of CBT in general as a tool for the management of depressive and anxiety disorders. However, few studies have been published on the use of CBT specifically in the primary care setting (Blashki et al., 2008) and there is limited evidence available regarding PCPs perceptions on the use of CBT in the primary care setting (Pierce & Pearce, 2003). The present study addresses this gap in knowledge by establishing a baseline regarding NPs perceptions toward and use of CBT. This information will help guide future studies and enable the development of strategies to address the practice gap.

This study asked four questions: to what extent do NPs understand the uses of CBT; do NPs consider CBT to be a tool that is appropriate for the treatment of depression and anxiety disorders in the primary care setting; are NPs willing to use CBT in their primary care practices;

and what barriers limit the use of CBT by NPs. The results of the study provide some answers to the proposed study questions and offer insights regarding NPs knowledge of CBT and their perceived barriers to its use.

The extent to which NPs understand the uses of CBT was not clearly established as the data was obscured by the high rate of neutral responses. Nevertheless, some results were quite straightforward. A strong majority of respondents felt they were competent in identification and treatment of patients with depressive and anxiety disorders, however, less than a third indicated that they currently utilize CBT in the management of any condition. Both of these outcomes are consistent with the literature indicating that, while PCPs feel competent in the identification and treat patients with mental health disorders in the primary care setting (Oyama, Burg, Fraser & Kosch, 2012), CBT is not being widely utilized by PCPs in the primary care setting (Blashki, Parsons et al., 2003; Hoifodt et al., 2011; Blane et al., 2013).

While the majority of respondents recognized CBT as a first-line treatment option for the management of depression and anxiety, less than half indicated that they were knowledgeable about the uses of CBT and less than one third indicated that they were introduced to CBT in their NP programs. This result suggests that, while NPs recognize the value of CBT in treating depression and anxiety in general, they are not properly prepared to employ CBT methods in practice. This finding is consistent with evidence indicating that PCPs feel that they receive inadequate preparation for the management of mental health disorders in the academic setting (AHRQ, 2012).

As with the first study question, the question of whether NPs consider CBT to be a tool that is appropriate for use by PCPs in the primary care setting was not clearly established. An additional similarity was a high rate of neutral responses to most of the items that addressed this

question. Moreover, of the non-neutral responses, the numbers of agree and disagree responses were nearly equivalent for many of the questions, thus further leveling the results.

When asked if PCPs have the appropriate background to become competent in the delivery of CBT, responses were nearly evenly distributed between agree, neutral, and disagree. Only half of the respondents considered CBT to be a useful tool for PCPs and less than half of the respondents considered CBT to be effective for the treatment of depression and anxiety when provided in the primary care setting.

In addition to the problem of neutral outcomes, results between two questionnaire items that asked the same question in different ways also produced conflicting outcomes. For example, when asked whether the practice of CBT would interfere with productivity, more respondents agreed than disagreed. Contrary to this result, when asked if the use of CBT would shorten office visits, almost half of the respondents agreed.

Taken together, these outcomes reflect a general lack of knowledge relating to the appropriate use of CBT. This should come as no surprise given the fact that there is currently no established standard of practice for the management of mental health conditions by PCPs in the primary care setting (Oyama, Burg, Fraser & Kosch, 2012).

The question of whether NPs are willing to use CBT in their practices was clearly established: according to every measure, NPs indicated a strong willingness to use CBT. This result runs contrary to reports of low levels of current utilization. Additionally, the vast majority of respondents indicated that they would be willing to learn CBT at this time. The present data indicate that opportunities for education and training are strong predictors of willingness to use CBT. This suggests that increased education and training, either in the academic setting or in the professional practice setting, may lead to increased utilization. However, the results presented

here suggest that exposure to CBT in an NP program was not directly correlated with use of CBT in the practice setting. Consequently, it is possible that professional education programs would have greater success in promoting utilization.

The existing research on effective CBT training techniques for PCPs is limited (Kearley & Croft, 2010; Rose et al., 2011) and the results are sometimes conflicting. An RCT conducted by King et al. (2002) found that providing PCPs with a brief training bundle in CBT techniques resulted in no change in their attitudes toward depression or their attitudes toward treatment. The recommendations accompanying this study suggest that, in order to be effective, training for providers needs to be more substantial and include ongoing support. More recent research found that educating medical students in CBT techniques resulted in improved knowledge and skills as well as attitudinal changes reflecting increased appreciation of the effectiveness and utility of CBT as a tool for PCPs (Kearley & Croft, 2010; Wiebe & Greiver, 2005). Irrespective of these inconsistencies, both the Baltimore Statement on the integration of mental health/behavioral health into primary care and the Society of Teachers of Family Medicine (STEM) recommend that all family medicine programs should include instruction in behavioral and mental health care (Oyama, Burg, Fraser & Kosch, 2012). More research needs to be conducted to determine the most effective means of educating and training practitioners in the use of CBT.

This study establishes that the primary barriers limiting the use of CBT by NPs are uncertainty regarding reimbursement, uncertainty regarding leadership support, practice time constraints, and alternate practice-related priorities. Reimbursement barriers stand out as the area where a lack of knowledge is most evident. Not a single respondent indicated that they knew how to bill properly to ensure reimbursement for CBT. The majority of respondents were either uncertain or in agreement that they would not be reimbursed for time spent using CBT. And only

15% believed that they would be reimbursed for CBT if they utilized proper billing techniques. Not all reimbursement barriers are related to knowledge deficits; it has been well established that the current reimbursement system in the United States impedes the utilization of CBT in the primary care setting in multiple ways, including the segregation of payment for mental health and payment for physical health (AHRQ, 2012; Joesch et al., 2011; Morriss, 2012; Robinson & Strossahl, 2009). This barrier will continue to limit the use of CBT by PCPs until insurers in the United States respond to the evidence supporting the use of CBT in the primary care setting (Joesch et al., 2011).

Surprisingly, given the fact that questions regarding reimbursement produced the highest neutral/NA response rates, reimbursement was the weakest of the potential predictors of willingness to use CBT.

The majority of respondents indicated that they were uncertain whether leadership in their practices supported the use of CBT to treat depression and anxiety.

Additional barriers to the use of CBT can be gleaned from the above responses to the first two study questions. Knowledge deficits related to the use of CBT were clearly evidenced by the majority of respondents. These respondents indicated that they were not knowledgeable about the use of CBT, and were not introduced to the use of CBT in their NP programs. Additionally, negative attitudes toward the use of CBT were reflected by the majority of NPs who indicated that they were unsure whether or not they considered CBT to be a useful tool for PCPs. Similarly, as indicated above, less than half believed that the efficacy of CBT is clearly supported by research. These barriers could be appropriately addressed through increased efforts at education and training.

This study reveals barriers related to time constraints and practice priorities, which parallels findings throughout the literature (Oyama et al., 2012; Wiebe & Greiver, 2005). Time constraint barriers are more difficult to address than knowledge deficits; however, Wiebe and Greiver (2005) suggest that time constraint barriers may be overcome by employing the structure that is inherent in CBT methodologies and selecting CBT components and techniques that are specifically suited to both the practice setting and the patient needs.

### **Limitations**

First, this study was based on a convenience sample of NPs only; whether the results would translate to the general population of NPs is unknown. Second, the questionnaire was developed for this study; despite efforts to ensure a reasonable degree of reliability and validity the questionnaire, ultimately, has only face validity. Third, the “neutral/NA” option limited the amount of information that could be deciphered from that response. It is possible that more information could have been gathered from a response that was more specific to each question (e.g., “I don’t have enough information”) would be better for some questions, while “NA” would be better for others. Finally, some of the questions presented nuanced distinctions between concepts and mixed responses interfered with clear interpretation of the results.

A prominent feature of the results, one that warrants further discussion, was the high number of “neutral/NA” responses to questions about efficacy, reimbursement, training, utilization, and leadership support for CBT. There is considerable debate surrounding the value and potential analytical liability of neutral responses in Likert-scaled surveys (Bradley, Cunningham, Akers & Knutson, 2011). Neutral responses may reflect respondent tendencies toward satisficing, ambivalence, or social desirability (Edwards & Smith, 2011) and may diminish the magnitude and specificity of the results (Bradley, et al., 2011). Moreover, it is

difficult to determine the intent of the respondent since a neutral response may indicate something other than a truly neutral feeling toward the question, such as a lack of content knowledge or lack of applicability. However, from a rhetorical perspective, neutral responses are far from devoid of meaning; the lack of a definitive response is a significant gesture that can indicate a number of profound things, including a lack of information (Glenn, 2004). Consequently, the high neutral response rate may be seen as indicative of a broad lack of knowledge by NPs regarding efficacy, reimbursement, training, utilization, and leadership support for the use of CBT.

### **Conclusions**

The data presented here support the proposition that CBT is currently being underutilized by NPs in the primary care setting for the treatment of depressive and anxiety disorders. The data also offer potential explanations for that underutilization suggesting that increased education in the proper technique, processes, and billing methods for CBT may contribute to greater utilization by NPs. However, it is unknown at this time what types of education and training might be most effective, and whether that education and training should occur in the academic setting or the practice setting. Future studies should seek to answer this question.

The data suggest several factors as making major contributions to the underutilization of CBT in the primary care setting. In order for NPs to engage in practices that are evidence-based, there must first be adequate evidence on which to base those practices; future studies should be targeted, specifically, at the use of CBT by NPs in the primary care setting. Also, reimbursement issues need to be addressed by insurers before CBT can be widely adopted by NPs. Finally, and perhaps most importantly, a standard of practice should be adopted regarding the treatment of mental health conditions in the primary care setting.

APPENDIX A:  
THE UNIVERSITY OF ARIZONA IRB APPROVAL



Human Subjects  
Protection Program

1618 E. Helen St.  
P.O. Box 245137  
Tucson, AZ 85724-5137  
Tel: (520) 626-6721  
<http://www.arizona.edu/hssp>

<b>Date:</b>	May 07, 2014
<b>Principal Investigator:</b>	Delia Mary-Hearn Story
<b>Protocol Number:</b>	1405312382
<b>Protocol Title:</b>	Knowledge, Use and Barriers of Cognitive Behavioral Therapy by Nurse Practitioners in Primary Care.
<b>Level of Review:</b>	Exempt
<b>Determination:</b>	Approved

This submission meets the criteria for exemption under 45 CFR 46.101(b).

- The University of Arizona maintains a Federalwide Assurance with the Office for Human Research Protections (FWA #00004218).
- All research procedures should be conducted in full accordance with all applicable sections of the Investigator Manual.
- Exempt projects do not have a continuing review requirement.
- Amendments to exempt projects that change the nature of the project should be submitted to the Human Subjects Protection Program (HSPP) for a new determination. See the Investigator Manual, 'Appendix C Exemptions,' for more information on changes that affect the determination of exemption. Please contact the HSPP to consult on whether the proposed changes need further review.
- All documents referenced in this submission have been reviewed and approved. Documents are filed with the HSPP Office. If subjects will be consented the approved consent(s) are attached to the approval notification from the HSPP Office.

Your proposal is in compliance with Federalwide Assurance 00004218. This project should be conducted in full accordance with all applicable sections of the IRB Investigators Manual and you should notify the IRB immediately of any proposed changes that affect the protocol. You should report any unanticipated problems involving risks to the participants or others to the IRB.

This project has been reviewed and approved by an IRB Chair or designee.

APPENDIX B:  
QUESTIONNAIRE

Age \_\_\_\_\_  
 Gender \_\_\_\_\_  
 Number of years in practice \_\_\_\_\_  
 Practice specialty \_\_\_\_\_

**Instructions: To complete the questionnaire, first read each statement and then indicate the response that most closely represents your answer by placing a mark in the appropriate box adjacent to the statement.**

Question	Strongly Agree	Agree	Neutral/NA	Disagree	Strongly Disagree
1. I am skilled at detecting depression and anxiety in my patients					
2. I am confident in my abilities to help patients who present with depression and anxiety					
3. Cognitive behavioral therapy (CBT) is a useful tool for _____s					
4. CBT administered in the primary care setting is effective for the treatment of depression and anxiety.					
5. CBT is recommended as a first-line treatment option for depression and anxiety					
6. Using CBT to treat my anxious and depressed patients will help shorten office visits					
7. I am knowledgeable about the use of CBT to treat depression and anxiety					
8. I was introduced to the use of CBT in my NP program					
9. I currently use CBT in the management of certain conditions.					
10. I can access guidelines for the use of CBT to treat depression and anxiety in the primary care setting					
11. Studies clearly indicate that CBT provided in the primary care setting is effective in the treatment of depression and anxiety.					
12. With proper billing, PCPs will be reimbursed for the use of CBT.					

Question	Strongly Agree	Agree	Neutral/NA	Disagree	Strongly Disagree
13. I understand how to bill properly so that I will be reimbursed for the use of CBT					
14. As a primary care provider I have the appropriate background to become competent in the delivery of CBT for the treatment of depression and anxiety.					
15. I am currently willing to learn to use CBT for the treatment of depression and anxiety.					
16. I would be willing to use CBT in the treatment of depression and anxiety if I had access to a mental health professional in my practice setting					
17. I would be willing to use CBT in the treatment of depression and anxiety if I had dedicated time on my schedule.					
18. I would be willing to use CBT in the treatment of depression and anxiety if I was assured adequate reimbursement.					
19. I would be willing to use CBT in the treatment of depression and anxiety if I had more education and training in the use of CBT.					
20. I would be willing to use CBT if the leadership personnel in my practice established expectations about the use of CBT for the treatment of depression and anxiety.					
21. Learning to use CBT is a very difficult process					
22. Training in the use of CBT is a very time intensive process					
23. CBT is too time consuming to use in a busy primary care setting					
24. Introducing CBT into my practice would slow things down and interfere with productivity					

<b>Question</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neutral/NA</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
25. I have a lot of other practice-related priorities ahead of adding CBT to my practice					
26. Leadership personnel at my practice do not support the use of CBT in the treatment of depression and anxiety.					
27. I will not be reimbursed for time spent using CBT in my practice					

**Thank you for your participation. Please deposit all three pages of this document into the collection box as you exit.**

APPENDIX C:  
LITERATURE REVIEW GRID

Content Area	Author	Date
<b><i>Conditions Treated with CBT in the Primary Care Setting</i></b>		
Anxiety (including GAD, PD, PTSD, SAD*) *Social Anxiety Disorder	Andrews, G., Cuijpers, P., Craske, M. G., McEvoy, P. & Titov, N.	2010
	Blaine, Williams, Morrison, Wilson & Mercer	2013
	Blashi, G., Richards, J. C., Ryan, P., Pierce, D., McCabe, M. P., Morgan, H., Hickie, I. B. & Sumich, H.	2003
	Brown, L. A., Craske, M. G., Glenn, D. E., Stein, M. B., Sullivan, G., Sherbourne, C., Bystritsky, A., Welch, S., Campbell-Sills, L., Lang, A. J., Roy-Byrne, P. P. & Rose, R. D.	2012
	Calleo, J. S., Bush, A. L., Cully, J. A., Wilson, N. L., Kraus-Schuman, C., Rhoads, H. M., Novy, D. M., Masozera, N., Williams, S., Horsfield, M., Kunik, M. E. & Stanley, M. A.	2013
	Cape, J., Whittington, C., Buszewicz, M., Wallace, P. & Underwood, L.	2010
	Craske, M. G., Roy-Byrne, P. P., Stein, M. B., Sullivan, G., Sherbourne, C. & Bystritsky, A.	2009
	Davidson, J. R. T., Feltner, D. E. & Dugar, A.	2010
	Edelman, S. & Blashki, G.	2007
	Harden, M.	2012
	Hoifodt, R. S., Strom, C., Kolstrup, N., Eisemann, M. & Waterloo, K.	2011
	Kyrios, M., Moulding, R. & Nedejkovic, M.	2011
	Mewton, L., Wong, N. & Andrews, G.	2012
	Newby, J. M., Meckenzie, A., Williams, A. D., McIntyre, K., Watts, S., Wong, N. & Andrews, G.	2013
	Rose, R. D., Lang, A. J., Welch, S., Campbell-Sills, L., Chavira, D. A., Sullivan, G., Sherbourne, C., Bystritsky, A., Stein, M. B., Roy-Byrne, P. P. & Craske, M. G.	2011
	Roy-Byrne, P., Veitengruber, J. P., Bystritsky, A., Edlund, M. J., Sullivan, G. Craske, M. G., Welch, S., Rose, R. & Stein, M. B.	2009
Depression (mild to moderate)	Andrews, G., Cuijpers, P., Craske, M. G., McEvoy, P. & Titov, N.	2010
	Blaine, Williams, Morrison, Wilson & Mercer	2013
	Blashi, G., Richards, J. C., Ryan, P., Pierce, D., McCabe, M. P., Morgan, H., Hickie, I. B. & Sumich, H.	2003
	Cape, J., Whittington, C., Buszewicz, M., Wallace, P. & Underwood, L.	2010
	Carta, M. G., Petretto, D., Adamo, S., Bhat, K. M., Lecca, M. E., Mura, G., Carta, V., Angermeyer, M. & Moro, M. F.	
	Collins, K. A., Wolfe, V. V., Fishman, S., DePace, J. & Steele, M.	2006
	Gellatly, J., Bower, P., Hennessey, S., Richards, D., Gilbody, S. & Lovell, K.	2007
	Harden, M.	2012
	Hermanns, N., Caputo, S., Dzida, G., Khunti, K., Meneghini, L. F. & Snoek, F.	2012
	Hoifodt, R. S., Strom, C., Kolstrup, N., Eisemann, M. & Waterloo, K.	2011
	Hopko, D.	2013
	McNaughton, J. L.	2009
	Mohr, D. C., Ho, J., Duffecy, J., Reifler, D., Sokol, L., Burns, M. N., Jin, L. & Siddique, J.	2012
	Newby, J. M., Meckenzie, A., Williams, A. D., McIntyre, K., Watts, S., Wong, N. & Andrews, G.	2013

Content Area	Author	Date
<b><i>Conditions Treated with CBT in the Primary Care Setting (Continued)</i></b>		
Panic Disorder	Grey, N., Salkovskis, P., Quigley, A., Clark, D. M. & Ehlers, A.	2008
PTSD	Possemato, K.	2011
Somatization	Blashi, G., Richards, J. C., Ryan, P., Pierce, D., McCabe, M. P., Morgan, H., Hickie, I. B. & Sumich, H.	2003
	Morriss, R.	2012
Quality of Life	Carta, M. G., Petretto, D., Adamo, S., Bhat, K. M., Lecca, M. E., Mura, G., Carta, V., Angermeyer, M. & Moro, M. F.	2012
<b><i>Personnel Administering CBT</i></b>		
Treatments delivered by person <i>other than Clinical Psychologist</i> , including Nurse, Social Worker, or PCP.	Arroll, B. & Moir, F.	2010
	Blashki, G., Parsons, J., Morgan, H., Hickie, I. B. & Davenport, T.A.	2003
	Blashi, G., Richards, J. C., Ryan, P., Pierce, D., McCabe, M. P., Morgan, H., Hickie, I. B. & Sumich, H.	2003
	Brown, L. A., Craske, M. G., Glenn, D. E., Stein, M. B., Sullivan, G., Sherbourne, C., Bystritsky, A., Welch, S., Campbell-Sills, L., Lang, A. J., Roy-Byrne, P. P. & Rose, R. D.	2012
	Calleo, J. S., Bush, A. L., Cully, J. A., Wilson, N. L., Kraus-Schuman, C., Rhoads, H. M., Novy, D. M., Masozera, N., Williams, S., Horsfield, M., Kunik, M. E. & Stanley, M. A.	2013
	Carta, M. G., Petretto, D., Adamo, S., Bhat, K. M., Lecca, M. E., Mura, G., Carta, V., Angermeyer, M. & Moro, M. F.	2012
	Craske, M. G., Roy-Byrne, P. P., Stein, M. B., Sullivan, G., Sherbourne, C. & Bystritsky, A.	2009
	Edelman, S. & Blashki, G.	2007
	Harden, M.	2012
	Hoifodt, R. S., Strom, C., Kolstrup, N., Eisemann, M. & Waterloo, K.	2011
	Huibers, M. J. H., Beurskens, A. J. H. M., Bleijenberg, G. & Schayck, C. P. V.	2003
	Kyrios, M., Moulding, R. & Nedejkovic, M.	2011
	Possemato, K.	2011
	Espie, C. A., Inglis, S. J., Tessier, S. & Harvey, L.	2001
	Rose, R. D., Lang, A. J., Welch, S., Campbell-Sills, L., Chavira, D. A., Sullivan, G., Sherbourne, C., Bystritsky, A., Stein, M. B., Roy-Byrne, P. P. & Craske, M. G.	2011
	Roy-Byrne, P., Veitengruber, J. P., Bystritsky, A., Edlund, M. J., Sullivan, G., Craske, M. G., Welch, S., Rose, R. & Stein, M. B.	2009
	Treatments delivered by trained Therapist or Clinical Psychologist, operating within the primary care setting	Beehler, G. P. & Wray, L. O.
Cape, J., Whittington, C., Buszewicz, M., Wallace, P. & Underwood, L.		2010
Espie, C. A.		2009
Grey, N., Salkovskis, P., Quigley, A., Clark, D. M. & Ehlers, A.		2008
Mohr, D. C., Ho, J., Duffecy, J., Reifler, D., Sokol, L., Burns, M. N., Jin, L. & Siddique, J.		2012
Possemato, K.		2011
Runyan, C., Robinson, P. & Gould, D. A.		2013

<b>Content Area</b>	<b>Author</b>	<b>Date</b>
<b><i>Methods for Delivering CBT</i></b>		
Clinician-supported Computer CBT	Andrews, G., Cuijpers, P., Craske, M. G., McEvoy, P. & Titov, N.	2010
	Brown, L. A., Craske, M. G., Glenn, D. E., Stein, M. B., Sullivan, G., Sherbourne, C., Bystritsky, A., Welch, S., Campbell-Sills, L., Lang, A. J., Roy-Byrne, P. P. & Rose, R. D.	2012
	Craske, M. G., Roy-Byrne, P. P., Stein, M. B., Sullivan, G., Sherbourne, C. & Bystritsky, A.	2009
	Hoifodt, R. S., Strom, C., Kolstrup, N., Eisemann, M. & Waterloo, K.	2011
	Rose, R. D., Lang, A. J., Welch, S., Campbell-Sills, L., Chavira, D. A., Sullivan, G., Sherbourne, C., Bystritsky, A., Stein, M. B., Roy-Byrne, P. P. & Craske, M. G.	2011
Abbreviated CBT (“CBS”)	Blashi, G., Richards, J. C., Ryan, P., Pierce, D., McCabe, M. P., Morgan, H., Hickie, I. B. & Sumich, H.	2003
	Edinger, J. D. & Sampson, W. S.	2003
	Ridgway, N. & Williams, C.	2011
Computer CBT	McNaughton, J. L.	2009
	Mewton, L., Wong, N. & Andrews, G.	2012
	Newby, J. M., Meckenzie, A., Williams, A. D., McIntyre, K., Watts, S., Wong, N. & Andrews, G.	2013
Self-Help	McNaughton, J. L.	2009
	Ridgway, N. & Williams, C.	2011
Guided Self-Help	Gellatly, J., Bower, P., Hennessey, S., Richards, D., Gilbody, S. & Lovell, K.	2007
Telephonic	Mohr, D. C., Ho, J., Duffecy, J., Reifler, D., Sokol, L., Burns, M. N., Jin, L. & Siddique, J.	2012
<b><i>Approaches to the Delivery of CBT</i></b>		
Collaborative Care: (May include direct therapy by Psychologist, Psychologist support of PCP, or supervision of treatment by Psychologist)	Beehler, G. P. & Wray, L. O.	2012
	Brown, L. A., Craske, M. G., Glenn, D. E., Stein, M. B., Sullivan, G., Sherbourne, C., Bystritsky, A., Welch, S., Campbell-Sills, L., Lang, A. J., Roy-Byrne, P. P. & Rose, R. D.	2012
	Cape, J., Whittington, C., Buszewicz, M., Wallace, P. & Underwood, L.	2010
	Carta, M. G., Petretto, D., Adamo, S., Bhat, K. M., Lecca, M. E., Mura, G., Carta, V., Angermeyer, M. & Moro, M. F.	2012
	Collins, K. A., Wolfe, V. V., Fishman, S., DePace, J. & Steele, M.	2006
	Craske, M. G., Roy-Byrne, P. P., Stein, M. B., Sullivan, G., Sherbourne, C. & Bystritsky, A.	2009
	Dundon, M., Dollar, K., Schohn, M. & Lantinga, L. J.	2011
	Morriss, R.	2012
	Possemato, K.	2011
	Robinson, P. J. & Rickard, J. A.	2013
	Robinson, P. J. & Strossahl, K. D.	2009
	Rose, R. D., Lang, A. J., Welch, S., Campbell-Sills, L., Chavira, D. A., Sullivan, G., Sherbourne, C., Bystritsky, A., Stein, M. B., Roy-Byrne, P. P. & Craske, M. G.	2011
	Runyan, C., Robinson, P. & Gould, D. A.	2013

<b>Content Area</b>	<b>Author</b>	<b>Date</b>
<b><i>Approaches to the Delivery of CBT (Continued)</i></b>		
Stepped Care: (Includes some collaboration between PCP and Psychologist as Patient transitions between levels of care)	Carta, M. G., Petretto, D., Adamo, S., Bhat, K. M., Lecca, M. E., Mura, G., Carta, V., Angermeyer, M. & Moro, M. F.	2012
	Espie, C. A.	2009
	Hermanns, N., Caputo, S., Dzida, G., Khunti, K., Meneghini, L. F. & Snoek, F.	2012
	Possemato, K.	2011
<b><i>Training Considerations Associated with Delivery of CBT</i></b>		
Differences in effect size between PCP and trained Therapist or Clinical Psychologist	Calleo, J. S., Bush, A. L., Cully, J. A., Wilson, N. L., Kraus-Schuman, C., Rhoads, H. M., Novy, D. M., Masozera, N., Williams, S., Horsfield, M., Kunik, M. E. & Stanley, M. A.	2013
Additional training of PCPs had no impact on outcomes	Hoifodt, R. S., Strom, C., Kolstrup, N., Eisemann, M. & Waterloo, K.	2011
Additional training of providers had positive impact on performance	Blashki, G. A., Piterman, L., Meadows, G. N., Clarke, D. M., Vasuki, P., Gunn, J. M. & Judd, F. K.	2008
	Grey, N., Salkovskis, P., Quigley, A., Clark, D. M. & Ehlers, A.	2008
	Murrihy, R. & Byrne, M. K.	2005
Additional training of providers had positive impact on Patient outcomes	Murrihy, R. & Byrne, M. K.	2005
Lack of training cited as reason for not using CBT	Collins, K. A., Wolfe, V. V., Fishman, S., DePace, J. & Steele, M.	2006
	McNaughton, J. L.	
	Robinson, P. J. & Strossahl, K. D.	2009
	Zowie, D., Middlemass, J. & Siriwardena, A. N.	2013
<b><i>Reimbursement Considerations</i></b>		
Application is limited by lack of insurance reimbursement	Joesch, J. M., Sherbourne, C. D., Sullivan, C., Stein, M.B., Craske, M. G. & Roy-Byrne, P.	2011
	Robinson, P. J. & Strossahl, K. D.	2009
<b>Treatment Gap</b>	Ridgway, N. & Williams, C.	2011
	Mercer, S.	2013
	Hoifodt, R. S., Strom, C., Kolstrup, N., Eisemann, M. & Waterloo, K.,	2011
<b>General considerations</b>	Cowap, S.	2004
<b>Guidelines</b>	National Institute for Health and Clinical Excellence	2009
	National Health Service	2011
<b>Conceptual foundation</b>	Ajzen, I.	1991
	Plolit, D. & Beck, C.	2012
<b>Data analysis</b>	Bradley, K., Cunningham, J., Akers, K. & Knutson, N.	2011
	Edwards, M. & Smith, B.	2011
<b>CBT training and education</b>	King, M., Davidson, O., Taylor, F., Haines, A., Sharp D. & Turner R.	2002
	Kearley, K. & Croft, A.	2010
	Wiebe, E. & Greiver, M.	2005
<b>Understanding neutral responses when using a Likert scale</b>	Bradley, K. D., Cunningham, J. D., Akers, K. S., & Knutson, N.	2011
	Edwards, M. L. & Smith, B. C.	2011
	Glenn, C.	2004

<b>Content Area</b>	<b>Author</b>	<b>Date</b>
<b><i>Barriers to the Use of CBT</i></b>		
Reimbursement issues	Agency for Healthcare Research and Quality	2012
	Joesch, J. M., Sherbourne, C. D., Sullivan, C., Stein, M. B., Craske, M. G. & Roy-Byrne, P.	2011
	Morriss, R.	2012
	Robinson, P. J. & Strossahl, K. D.	2009
Time constraints	Oyama, O., Burg, M. A., Fraser, K. & Kosch, S. G.	2010
	Wiebe, E. & Greiver, M.	2005
Knowledge deficits	Agency for Healthcare Research and Quality	2012
	Johnson, C.	2007
<b>Questionnaire development</b>	Kramer, T. & Burns, B.	2008
	Pierce, D. & Pearce, C.	2003
	Polit, D. F. & Beck, C. T.	2012

## REFERENCES

- Agency for Healthcare Research and Quality (AHRQ) (2012). Experts call for integrating mental health into primary care. *U.S. Department of Health and Human Services*, 377, 1-5.
- Andrews, G., Cuijpers, P., Craske, M. G., McEvoy, P. & Titov, N. (2010). Computer therapy for the anxiety and depressive disorders is effective, acceptable and practical health care: a meta-analysis. *PLoS One*, 13(5). doi: 10.1371/journal.pone.0013196.
- Arroll, B. & Moir, F. (2010). Time for a rethink of treatment for patients with depression in primary care. *British Journal of General Practice*, 60(578), 641-642. doi: 10.3399/bjgp.10X515331
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- Beehler, G. P. & Wray, L. O. (2012). Behavioral health providers' perspectives of delivering behavioral health services in primary care: A qualitative analysis. *BMC Health Services Research*, 12(337). Retrieved from <http://biomedcentral.com/1472-6963/12/337>.
- Blane, D., Williams, C., Morrison, J., Wilson, A. & Mercer, S. (2013). Cognitive behavioural therapy: Why primary care should have it all. *British Journal of General Practice*, 63(607), 103-104. doi: 10.3399/bjgp13X663235
- Blashki, G., Parsons, J., Morgan, H., Hickie, I. B. & Davenport, T.A. (2003). Providing psychological treatments in general practice. *Australian Family Physician*, 32(8), 625-630.
- Blashki, G. A., Piterman, L., Meadows, G. N., Clarke, D. M., Vasuki, P., Gunn, J.M. & Judd, F. K. (2008). Impact of an educational intervention on general practitioners' skills in cognitive behavioural strategies: A randomized controlled trial. *Medical Journal of Australia*, 188(12), s129-s132.
- Blashki, G., Richards, J. C., Ryan, P., Pierce, D., McCabe, M. P., Morgan, H., ... & Sumich, H. (2003). Cognitive behavioural strategies for general practice. *Australian Family Physician*, 32(8), 910-917.
- Bradley, K. D., Cunningham, J. D., Akers, K. S. & Knutson, N. (2011). Middle category or survey pitfall: Using Rasch modeling to illustrate the middle category measurement flaw. *American Educational Research Association*. Retrieved from [http://www.uky.edu/~kbrad2/MiddleCategory\\_AERA2011\[1\].pdf](http://www.uky.edu/~kbrad2/MiddleCategory_AERA2011[1].pdf)
- Brown, L. A., Craske, M. G., Glenn, D. E., Stein, M. B., Sullivan, G., Sherbourne, C., ... & Rose, R. D. (2012). CBT competence in novice therapists improves anxiety outcomes. *Depression and Anxiety*, 30, 97-115. doi: 10.1002/da.22027.

- Calleo, J. S., Bush, A. L., Cully, J. A., Wilson, N. L., Kraus-Schuman, C., Rhoads, H. M., ... & Stanley, M. A. (2013). Treating late-life generalized anxiety disorder in primary care: An effectiveness pilot study. *The Journal of Nervous and Mental Disease*, 201(5), 414-419. Doi: 10.1097/NMD.0b013e31828e0fd6.
- Cape, J., Whittington, C., Buszewicz, M., Wallace, P. & Underwood, L. (2010). Brief psychological therapies for anxiety and depression in primary care: Meta-analysis and meta-regression. *BMC Medicine*, 8(38), 1-13.
- Carta, M. G., Petretto, D., Adamo, S., Bhat, K. M., Lecca, M. E., Mura, ... & Moro, M.F. (2012). Counseling in primary care improves depression and quality of life. *Clinical Practice & Epidemiology in Mental Health*, 8, 152-157.
- Collins, K. A., Wolfe, V. V., Fishman, S., DePace, J. & Steele, M. (2006). Managing depression in primary care: Community survey. *Canadian Family Physician*, 52, 879-884.
- Cowap, S. (2004). The trouble with CBT. *Australian Family Physician*, 33(7), 555.
- Craske, M. G., Roy-Byrne, P. P., Stein, M. B., Sullivan, G., Sherbourne, C. & Bystritsky, A. (2009). Treatment for anxiety disorders: Efficacy to effectiveness to implementation. *Behaviour Research and Therapy*, 47, 931-937. doi: 10.1016/j.brat.2009.07.012.
- Davidson, J. R. T., Feltner, D. E. & Dugar, A. (2010). Management of generalized anxiety disorder in primary care: Identifying the challenges and unmet needs. *Primary Care Companion Journal of Clinical Psychiatry*, 12(2). Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2911006/>.
- Dundon M., Dollar K. M., Schon M. & Lantinga L. J. (2011). Primary care mental health integration co-located, collaborative care: An operations manual. Retrieved from [http://www.mentalhealth.va.gov/coe/cihvisn2/Documents/Clinical/Operations\\_Policies\\_Procedures/MH-IPC\\_CCC\\_Operations\\_Manual\\_Version\\_2\\_1.pdf](http://www.mentalhealth.va.gov/coe/cihvisn2/Documents/Clinical/Operations_Policies_Procedures/MH-IPC_CCC_Operations_Manual_Version_2_1.pdf).
- Edelman, S. & Blashki, G. (2007). Managing anxious patients: Cognitive behaviour therapy in general practice. *Australian Family Physician*, 36(3), 212-220.
- Edwards, M. L. & Smith, B. C. (2011). The effects of the neutral response option on the extremeness of participant responses. *Incite*, 6. Retrieved from <http://blogs.longwood.edu/incite/2014/05/07/the-effects-of-the-neutral-response-option-on-the-extremeness-of-participant-responses>
- Espie, C. A. (2009). "Stepped care": A health technology solution for delivering cognitive behavioral therapy as a first line insomnia treatment. *Sleep*, 32(12), 1549-1558.
- Gellatly, J., Bower, P., Hennessey, S., Richards, D., Gilbody, S. & Lovell, K. (2007). What makes self-help interventions effective in the management of depressive symptoms: Meta-analysis and meta-regression. *Psychological Medicine*, 37(9), 1217-1228.

- Glenn, C. (2004). *Unspoken: A rhetoric of silence*. Southern Illinois University Press.
- Grey, N., Salkovskis, P., Quigley, A., Clark, D. M. & Ehlers, A. (2008). Dissemination of cognitive therapy for panic disorder in primary care. *Behavioural and Cognitive Psychotherapy*, 36, 509-520. doi: 10.1017/S1352465808004694.
- Harden, M. (2012). Cognitive behavior therapy. *Australian Family Physician*, 41(9), 668-671.
- Hermanns, N., Caputo, S., Dzida, G., Khunti, K., Meneghini, L. F. & Snoek, F. (2012). Screening, evaluation and management of depression in people with diabetes in primary care. *Primary Care Diabetes*, 7, 1-10. doi: 10.1016/j.pcd.2012.11.002.
- Hoifodt, R. S., Strom, C., Kolstrup, N., Eisemann, M. & Waterloo, K., (2011). Effectiveness of cognitive behavioural therapy in primary health care: A review. *Family Practice*, 28, 489-504. doi: 10.1093/fampra/cmz017.
- Hopko, D. (2013). Adjunctive CBT increases response in pharmacotherapy-resistant depression in primary care. *Evidence-Based Mental Health*, 16(50). doi: 10.1136/eb-2013-101297.
- Huibers, M. J., Beurskens, A. J., Bleijenberg, G., & van Schayck, C. P. (2003). The effectiveness of psychosocial interventions delivered by general practitioners. *The Cochrane Database of Systematic Reviews* (2). Retrieved from <http://www.ncbi.nlm.nih.gov/ezproxy1.library.arizona.edu/pubmed/12804471>.
- Joesch, J. M., Sherbourne, C. D., Sullivan, C., Stein, M. B., Craske, M. G. & Roy-Byrne, P. (2011). Incremental benefits and cost of coordinated anxiety learning and management for anxiety treatment in primary care. *Psychological Medicine*, 42, 1937-1948. doi: 10.1017/S0033291711002893.
- Johnson, C. (2007). Managing mental health issues in general practice. *Australian Family Physician*, 36(3), 202-205.
- Kearley, K. & Croft, A. (2010). Cognitive-behavioural skills training for medical students: Development and evaluation. *Psychiatric Bulletin*, 34, 251-256. doi: 10.1192/pb.bp.108.023994
- King, M., Davidson, O., Taylor, F., Haines, A., Sharp D. & Turner R. (2002). Effectiveness of teaching general practitioners skills in brief cognitive behaviour therapy to treat patients with depression: Randomized controlled trial. *BMJ*, 324, 947-50.
- Kramer, T. & Burns, B. (2008). Implementing cognitive behavioral therapy in the real world: A case study of two mental health centers. *Implementation Science*, 3(14), 1-10. doi:10.1186/1748-5908-3-14.
- Kyrios, M., Moulding, R. & Nedejkovic, M., (2011). Anxiety disorders: Assessment and management in general practice. *Australian Family Physician*, 40(6), 370-374.

- McNaughton, J. L. (2009). Brief interactions for depression in primary care: A systematic review. *Canadian Family Physician, 55*, 789-796.
- Mercer, S. (2013). Cognitive behavioral therapy: Why primary care should have it all. *British Journal of General Practice, 2*, 103-104. doi:10.3399/bjgp13X663235.
- Mewton, L., Wong, N. & Andrews, G. (2012). The effectiveness of internet cognitive behavioral therapy for generalized anxiety disorder in clinical practice. *Depression and Anxiety, 29*, 843-849. doi: 10.1002/da.21995.
- Mohr, D. C., Ho, J., Duffecy, J., Reifler, D., Sokol, L., Burns, M. N., ... & Siddique, J. (2012). Effect of telephone-administered vs face-to-face cognitive behavioral therapy on adherence to therapy and depression outcomes among primary care patients: A randomized trial. *Journal of the American Medical Association, 307*(21), 2278-2285.
- Morriss, R. (2012). Role of mental health professionals in the management of functional somatic symptoms in primary care. *British Journal of Psychiatry, 200*, 444-445. doi: 10.1192/bjp.bp.111.104083.
- Murrihy, R. & Byrne, M. K. (2005). Training models for psychiatry in primary care: A new frontier. *Australasian Psychiatry, 13*(3), 296-301.
- Newby, J. M., Meckenzie, A., Williams, A. D., McIntyre, K., Watts, S., Wong, N. & Andrews, G. (2013). Internet cognitive behavioural therapy for mixed anxiety and depression: A randomized controlled trial and evidence of effectiveness in primary care. *Psychological Medicine, 43*(12), 2635-48. doi: 10.1017/S0033291713000111.
- National Health Service (2011). *Mental health services*. Retrieved from: <http://www.uk/NHSEngland/AboutNHSservices/mentalhealthservices/Pages/Mentalhealthprofessionals.aspx>
- National Institute for Health and Clinical Excellence (NICE) (2009). Depression in adults: The treatment and management of depression in adults (NICE clinical guideline 90). Retrieved from <http://www.nice.org.uk/CG90>
- Oyama, O., Burg, M. A., Fraser, K. & Kosch, S. G. (2012). Mental health treatment by family physicians: Current practices and preferences. *Family Medicine 44*(10), 704-711.
- Pierce, D. & Pearce, C. (2003). Cognitive behavioural therapy: A study of rural general practitioners' understanding and expectations. *Australian Journal of Rural Health, 11*, 215-217.
- Polit, D. F. & Beck, C. T. (2012). Nursing research: Generating and assessing evidence for nursing practice (9<sup>th</sup> ed.). Philadelphia, PA: Lippincott, Williams & Wilkins.

- Possemato, K. (2011). The current state of intervention research for posttraumatic stress disorder within the primary care setting. *Journal of Clinical Psychology in Medical Settings, 18*, 268-280. doi: 10.1007/s10880-011-9237-4.
- Ridgway, N. & Williams, C. (2011). Cognitive behavioural therapy self-help for depression: An overview. *Journal of Mental Health, 20(6)*, 593-603. doi: 10.3109/09638237.2011.613956.
- Robinson, P. J. & Strossahl, K. D. (2009). Behavioral health consultation and primary care: Lessons learned. *Journal of Clinical Psychology in Medical Settings, 16*, 58-71. doi: 10.1007/s10880-009-9145-z.
- Rose, R. D., Lang, A. J., Welch, S., Campbell-Sills, L., Chavira, D. A., Sullivan, G., ... & Craske, M. G. (2011). Training primary care staff to deliver a computer-assisted cognitive-behavioral therapy program for anxiety disorders. *General Hospital Psychiatry, 33*, 336-342. doi: 10.1016/j.genhosppsy.2011.04.011.
- Roy-Byrne, P., Veitengruber, J. P., Bystritsky, A., Edlund, M. J., Sullivan, G., Craske, M. G., ... & Stein, M. B. (2009). Brief intervention for anxiety in primary care patients. *Journal of the American Board of Family Medicine, 22*, 175-186. doi: 10.3122/jabfm.2009.02.080078.
- Runyan, C., Robinson, P. & Gould, D. A. (2013). Ethical issues facing providers in collaborative primary care settings: Do current guidelines suffice to guide the future of team based primary care? *Families, Systems & Health, 31(1)*, 1-8. doi: 10.1037/a0031895.
- Wiebe, E. & Greiver, M. (2005). Using cognitive behavioural therapy in practice: Qualitative study of family physicians' experiences. *Canadian Family Physician, 51*, 992-993.
- Zowie, D., Middlemass, J. & Siriwardena, A. N. (2013). Patients' and clinicians' experiences and perceptions of the primary care management of insomnia: Qualitative study. *Health Expectations, 16(1)*, 1-11. doi: 10.1111/hex.12119.