The Implementation of a Structured Format of Brief Cognitive Behaviour Therapy (CBT) Methods to Overcome the Barriers and Facilitate the Delivery of CBT by Primary Healthcare Providers for Patients with Depression: A Pilot Evaluation

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ABSTRACT

Cognitive behaviour therapy is a well-documented first-line treatment for mild to moderate depression. Primary healthcare providers have encountered several barriers when trying to provide CBT in an office-based setting and as such, adoption of this evidence-based treatment has been suboptimal. Primary healthcare nurse practitioners (PHC NPs) have an in-depth knowledge of advanced nursing practice, and are responsible for the assessment, diagnosis and management of patients with acute and chronic conditions, such as depression. PHC NPs are also ideally situated in the health care system to deliver CBT to their patients. The objectives of this project were to develop a format for the delivery of brief CBT methods that was feasible in the PHC setting, increase PHC providers' confidence to implement CBT and ultimately increase their adoption of CBT. A pilot evaluation was conducted of an eight-session program of CBT methods that addressed the common factors of depression, in a comprehensive manner. Participants included PHC NPs, physicians and a social worker. For the scope of this project, performance markers were designed only to look at PHC providers' perspectives, and not patient outcomes. The findings show there was full adoption, partial adoption and requests for a modified version of the CBT innovation tool, to a more basic and simplified approach. Lack of confidence in their skills and the perception that their patients were not motivated enough were the main barriers encountered. Recommendations for future work include a longer evaluation of this eight-session CBT innovation for PHC providers inclined to do CBT, and a trial of a less-comprehensive approach for PHC providers with fewer skills, and ongoing "booster" training sessions of brief CBT methods, for all interested PHC providers.

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INTRODUCTION

Cognitive behaviour therapy (CBT) is a well documented evidence-based treatment for patients with depression (Churchill et al., 2001; Heifedt, Strem, Koistrup, Eisermann, & Waterlo, 2011; Whitfield & Williams, 2003). Despite best-practice guidelines suggesting it should be a first line therapy, CBT is not routinely offered in primary healthcare (PHC) settings due to multiple barriers to its implementation (Aschim, Lundevall, Martinsen and Frich, 2011; Kramer and Burns, 2008; Wiebe and Greiver, 2005). Evidence-based nursing involves efficiently using published literature to guide nursing practice and patient care. However, in transferring research findings into practice, PHC providers often encounter several challenges (DiCenso, Guyatt & Ciliska, 2005; Fawcett, 2009). The time lag between the time new information is generated and the time it is used in actual practice can be up to 8 to 15 years. This is problematic in healthcare where these time lags may adversely affect patient outcomes (Dobbins, Ciliska, Cockerill, Barnsley & DiCenso, 2002). The under-utilization of CBT in PHC is a prime example of this inability to move science into practice. Hence, this much needed health care service is not widely available for people living with depression.

Depression

Depression is a common condition that affects both males and females at various ages and stages throughout the life cycle (Gold, 2007). In Canada, depression affects about 10 to15% of men and 15 to 25% of women, with an estimated prevalence among 1 in 20 Canadians over the age of 15 years (Collins, Wolfe, Fisman, DePace, Steele, 2006; Mood Disorders Association of Ontario, n.d; Public Health Agency of Canada, 2006). These rates could easily be doubled when taking minor depressive symptoms into

consideration (McNaughton, 2009). According to the 2002 Stats Canada survey *Mental Health and Well Being*, 1 in 10 men and 1 in 6 women will have met the criteria for a mood disorder (primarily depression) at some point in their lifetime. In Ontario alone, more than half a million people experience depression in one year (Gold, 2007). Depression's broad reach includes not only adults, but also adolescents and seniors. According to the Canadian Mental Health Association, "Canadian statistics report the highest rates of depression among those 15 to 24 years (6.4 percent). This is of concern as suicide rates among Canadian youth remain high" (Gold, 2007). Currently, depression is also the leading cause of disability and premature death among people aged 18 to 44 years (Remick, 2002). Among seniors living in the community, the incidence of depression is estimated at 2.6%, however, for those living in institutions the rate is much higher at 7.7% (Gold, 2007).

Depression causes significant impairment in many functional domains of daily life including a reduction in quality of life and increased physical illness (Heifedt et al., 2011). In a Canadian population health survey, approximately 75 percent of depressed people said this condition interfered with their home or social life. Depression is also a major workplace issue as over 50 percent of the people indicated that depression interfered with their work (Government of Canada, 2006). Depression is likely to affect most people's lives, either through personal experience or in relations with family, co-workers and friends (Gold, 2007).

Health Canada estimates that depression and distress cost Canadians 14.4 billion dollars annually in medication, lost productivity and premature death (Hunsley, 2002; McNaughton, 2009). In fact, the World Health Organization (2012) states depression is a leading cause of disability and global burden, both socially and economically.

Cognitive Behaviour Therapy

CBT is a well-established type of psychotherapy that helps people to understand how their thoughts and feelings influence their behaviors (David, 2010; O'Kelly, 2010). CBT is a well documented, evidence-based therapy for people with depression (National Institute for Health and Clinical Excellence [NICE], 2009; Parikh et al., 2009; Scott, 2001). Level 1 evidence exists showing CBT to be as effective as medication, if not better, and Canadian clinical for the treatment of depressive disorders recommend CBT as a first- line treatment for mild to moderate depression (Parikh & Lam, 2001). In the case of major depression, CBT is also recommended, but should be implemented in combination with antidepressant medication (Parikh & Lam, 2001).

Traditionally, CBT was only offered by mental health clinicians or therapists, however, even for the willing and motivated patient, CBT was difficult to obtain due to stigma, long wait times, lack of services, and high costs (Mental Health Commission of Canada, 2012). The demand for CBT far outweighs the supply and there is a huge unmet need among the population of patients with minor depressive symptoms who would benefit from CBT (Lovell & Richards, 2000). This often leaves patients relying solely on their PHC provider for their psychological support during their struggle with depression (McNaughton, 2009). In recent years, however, CBT methods have been adapted to be deliverable in shorter appointments that are more typical for a PHC practice. Some of the basic principles and techniques of CBT can be applied even in a ten minute appointment (David, 2010; Whitfield & Williams, 2003).

The Mental Health Commission of Canada (MHCC) (2009) estimates that two out of every three adults who need mental health care are unable to obtain these services, and

the situation is even worse in underserviced and/or rural and northern areas. The MHCC claims that "stigma and fear keep many people from seeking help; many others are confused about where to find appropriate services and supports; while others cannot afford services or treatments that fall outside the publicly funded system." Recent strategies identified in "Changing Directions, Changing Lives: The Mental Health Strategy for Canada" recommends expanding the role of PHC in meeting the mental health needs of Canadians (MHCC, 2012). The strategy states:

> There are important reasons to provide mental health care in primary health care settings, which provide access to a range of primary health care providers. Since our mental and physical health are connected, they should be addressed together. Not only are people with chronic physical conditions at higher risk of developing mental health problems, but people with mental health problems and illnesses are also less likely to receive the care they need to maintain their physical health. (Strategic Direction 3, Priority 3.1, p. 56)

Cognitive Behaviour Therapy in Primary Healthcare

PHC providers are well situated in the health care system to offer CBT. They are the most likely providers to see patients when they are initially diagnosed with depression and often take on the responsibility of providing treatment and follow up. Patients already have an established rapport with their provider and this is the strongest positive predictor of a good outcome (O'Kelly, 2010). "Moreover, a strong therapeutic alliance is also associated with reduced symptom severity, improved patient functioning, and improved compliance" (Reesal & Lam, 2001, p. 22S). Patients are also familiar with the office appointment routine and services can be obtained without extra costs to the patient.

Although the PHC setting seems ideal in many ways for offering CBT, a review of the literature shows that practitioners have identified several barriers to the delivery of CBT in PHC (Aschim et al., 2011; Kramer and Burns, 2008; Wiebe and Greiver, 2005). These barriers include a lack of financial incentive, a lack of time to learn and implement CBT as well as interruptions and disruptions in the office. Furthermore, providers' lacked confidence in their own skills to offer CBT, perceived that some patients were poor candidates for this type of therapy, and that there was poor organizational support for learning CBT.

Advanced Practice Nurses

Advanced nursing practice is an advanced level of clinical nursing that maximizes the use of in-depth nursing knowledge and superior clinical skills, acquired through education and expertise, to meet the health needs of clients (Por, 2008; CNA, 2008). CBT use in PHC is a clinical issue that is relevant to nursing, particularly to Primary Health Care Nurse Practitioners (PHC NPs) who specialize in PHC and strive to provide accessible, comprehensive and effective care at a reasonable cost to the healthcare system. According to the Canadian Nurses Association (CNA) (2008), NPs are one of the two recognized roles that fall under the umbrella of advanced nursing practice. Their competencies, knowledge and skills in areas of health promotion and disease management include the diagnosis, treatment and ongoing support for patients living with acute and chronic conditions such as depression (Nurse Practitioner Association of Ontario [NPAO], 2012a). PHC NPs are not only capable of providing CBT but they are particularly well situated in the healthcare system for accessibility. PHC NPs are thought to be one of the fastest growing advanced practice nursing roles in Canada (Donald et al,

2010). All ten provinces and three territories now have legislation for PHC NPs, positioning them to link with health reform efforts to improve the accessibility and quality of PHC for all Canadians. Healthcare teams that include PHC NPs improve accessibility to heath care, especially in rural areas (Donald et al, 2010). The role of the PHC NP is rapidly evolving and may represent opportunities to overcome some of the identified barriers to implementing CBT in PHC.

The under-utilization of CBT in PHC reflects the broader challenges inherent in transferring evidence-based knowledge into actual practice. PHC NPs, in particular may have a role in facilitating the adoption and uptake of this much-needed treatment. This author proposed that a format for brief CBT methods can be developed to address the main components of depression, while remaining feasible for the PHC setting. Such a format could allow for increased adoption and utilization of CBT in PHC practices.

This paper describes the process used to develop a structured format of brief CBT methods (CBT innovation tool) to overcome the barriers and facilitate the delivery of CBT in PHC for patients with depression. The implementation of this CBT innovation tool is described via a pilot evaluation using a theoretical framework for adopting an evidence-based innovation into an organization. A statement of this practice issue and a thorough review of the literature including depression, CBT and the adoption framework that is used based on the Diffusion of Innovations Theory will follow.

STATEMENT OF PRACTICE ISSUE

CBT has been well documented in the literature as a highly effective treatment for depression, and despite its recommendation in many practice guidelines as a first line treatment, the evidence suggests that CBT is not being utilized in PHC practice (Aschim at al., 2011; Kramer & Burns, 2008; Lovell & Richards, 2000; Newton & Yardley, 2007). The literature suggests there is a long and significant time lag between the generation of new evidence and the time it is used in actual practice (Dobbins, M., Ciliska, D., Estabrooks, C. & Hayward, S., 2005). This can be problematic in health care innovations where time lags may inversely affect patient outcomes (Dobbins et al, 2002). The Mental Health Commission of Canada (2009) states "there is an unacceptable lag in the translation of new knowledge into practice – estimates suggest that it can take up to 15 years" (p. 18). The Commission's strategies recommend stakeholders work together to accelerate the translation of new knowledge into practice.

This author is a Master of Science in Nursing (MScN) candidate and also a PHC-NP with many clients in her practice living with depression. PHC NPs, as advanced practice nurses, have competencies that include the ability to initiate the planning, implementation and evaluation of programs. This involves using knowledge-transfer skills to put research findings into practice to meet client needs (CNA, 2008). Within this author's family practice setting she identified a need to have CBT available for depressed clients who were interested in this treatment. In response to this gap in service, she obtained the training required to offer CBT to clients with a variety of mental health concerns, including depression. Equipped with this advanced skill-set, and combined with a grounding in theoretical foundations obtained through her graduate studies, the

under utilization of CBT in PHC was addressed via the development and implementation of a CBT program.

Implementing evidence into practice can be facilitated with the use of a theoretical framework that illustrates the process of transferring research findings into practice. Many of these frameworks are based on Rogers' Diffusion of Innovations Theory, which has made significant contributions to understanding the utilization of research findings in healthcare decision-making (Dobbins et al, 2002). This project used of a framework by Dobbins and colleagues that was based on the Diffusion of Innovations Theory, and is specific to changing health practices in an organization (see Appendix A).

There is a need to overcome the barriers identified in the literature to facilitate the delivery and utilization of CBT in PHC. Knowledge of the techniques of CBT is important, but the author found this alone was not sufficient to overcome barriers and be able to use CBT in an organized, comprehensive manner. In response to this challenge, a tool that offered a new format for the delivery of CBT was developed utilizing the framework by Dobbins et al. This involved identifying the common elements relevant to depression and addressing them using brief CBT methods. A structured format of eight sessions, aimed to be deliverable in a typical office-based primary care appointment, was developed (see Appendix K).

Drawing on the author's knowledge and the identified need for CBT in PHC, the CBT innovation tool was developed and implemented utilizing a theoretical framework for the adoption of evidence based innovations. Implementation of the innovation tool occurred initially within the author's own clinical practice setting, and then expanded to a

pilot evaluation with nine other interested practitioners within her organization and community.

LITERATURE REVIEW

This section includes a critical review and synthesis of the theoretical, empirical and professional bodies of literature that are relevant to the utilization of CBT in PHC for patients with depression. The condition of depression as a syndrome as it relates to the cognitive-behaviour theory is reviewed, as well as the common elements in depression and the CBT methods integrated to address them. Depression is also reviewed as it pertains to management in the PHC setting from both patient and provider perspectives, as well as the current recommendations for treatment. The literature around CBT is reviewed as it relates to efficacy, patient and provider perspectives on this type of therapy, and the barriers and facilitators to implement CBT in PHC. Additionally, opportunities for PHC NPs in delivering CBT will be reviewed. Finally, the Diffusion of Innovations Theory is reviewed and a framework by Dobbins and colleagues which is based on this theory is introduced. This framework will guide the process for adoption of the newly developed CBT innovation via a pilot evaluation for this advanced practice nursing project.

Depression

There are many theories of depression, each with its own implication for the type of therapy used (Wade, 2011). Theories that involve social and psychological aspects of depression fall into a model where treatment focuses of talk-therapy, whereas biological theories suggest medication for treatment. The literature shows, however, that only one third of depressed patients fully respond to antidepressant medication and half do not even achieve a 50% reduction in their symptoms Wiles et al., 2013). This leads one to accept that depression is multifaceted (Wade, 2011).

A prominent and well- accepted theory of depression is the cognitive-behaviour theory which asserts that cognition, the way we think, plays an important role in behaviour change, and vice versa (McGinn, 2000; Nemade, Reiss & Dombeck, 2007; O'Kelly, 2010). Depressed people think differently than non-depressed people, and it is this difference in thinking that causes them to become depressed. The cognitive aspect of the theory has its roots in the mid 1950's with clinical psychologist Albert Ellis and the medically trained Dr. Aaron Beck. Both demonstrated it is not the actual event or situation that creates an emotional reaction, but rather the cognitions or thoughts that one attaches to the event. Their research showed that the affective disturbance of depression is secondary to cognitive distortions and negative thought patterns. This realization of the importance of cognitions was integrated into the already existing behavioural principles of depression. According to these principles, people with depression act and behave in ways, such as avoidant behaviour, that promote and maintain their depression (O'Kelly, 2010). CBT evolved from the empirical findings of the cognitive behaviour theory of depression (O'Kelly, 2010).

Depression is considered a syndrome affecting mood, thoughts, behaviours and physical symptoms. It is characterized by a persistent low mood and/or a loss of interest and enjoyment in usual activities for at least two weeks in a row (Parikh & Lam, 2001). The cognitive aspects include having unhelpful, negative thoughts of the self, others and the future (Greenberger & Padesky, 1995; McGinn, 2000; O'Kelly, 2010). Beck labeled this the "cognitive triad". He said depressed people have negative beliefs about themselves (see themselves as worthless, inadequate, unlovable, no good), their environment (see it as unfair, filled with obstacles and failure and perceive others as

mean, negative or critical) and the future (see it as hopeless, no effort will change it). Depression is also characterized by altered behaviours such as a withdrawal from social interactions and a reduction in activity - especially pleasurable activity. There can be an increase in unhelpful behaviours such as excessive rest, substance misuse and self harm. Physical and biological changes also occur in depression and include low energy, fatigue, poor sleep, appetite changes, difficulty concentrating and increased physical pain.

Common Features of Depression

To determine the most common elements of depression to include in the CBT innovation tool, several professional bodies of literature were reviewed. The books *Cognitive Behavior Therapy: Basics and Beyond* by Judith Beck, *Mind over Mood* by Greenberger and Padesky, *The Feeling Good Handbook* by David Burns, *Using CBT in General Practice: The Ten Minute Consultation* by Lee David and *CBT in Action* by Monica O'Kelly were used as primary resources. This author also obtained information at the CBT Depression workshop by Dr. Greg Dubord from CBT Canada with supplemental information contained in the workshop syllabus *CBT for Depression*. Several online CBT programs and resources for depression were also reviewed. The main ones that were used to draw from included *Getselfhelp.co.uk Get.gg*, *The Centre for Clinical Interventions* out of Australia and the *Cognitive Behavioural Interpersonal Skills Manual* from the Urgent Short Term Assessment team in Victoria, British Columbia.

In order to increase credibility and trustworthiness, the strategy of triangulation was used. Triangulation is the use of multiple sources to examine, validate and verify conclusions about meaning (Stommel & Wills, 2004). In an effort to ensure inclusion of

the most common elements of depression, only depressive factors listed in three or more resources were included.

Depression is often associated with several co-morbidities such as chronic disease, substance abuse or additional mental health diagnoses. For the purpose of simplicity and feasibility of use in PHC, however, the scope of this project included only common elements of depression (Beck, 2011; Burns, 1999; David, 2010; Greenberger & Padesky, 1995; O'Kelly, 2010). These included: 1) the importance of understanding depression as a syndrome as it relates to the cognitive-behavioural model 2) self-critical and perfectionistic thinking 3) withdrawing behaviour and loneliness 4) anhedonia and decreased activity 5) rumination 6) learned helplessness as it relates to luck versus habits 7) the fallacy of fairness 8) assertiveness 9) procrastination and 10) poor problem solving skills. Some of the strategies that encompass both the cognitive and behavioural aspects of CBT are incorporated into the discussion as they address these common elements.

Understanding Depression as a Syndrome

Understanding depression as a syndrome that includes not only a sad mood, but also cognitive, behavioural, physical and emotional symptoms, is fundamental to learning to manage depression. Both Greenberger and Padesky (1995) and David (2010) assert there are five components to depression. These include: environmental/life situations, physical reactions, moods, behaviours, and thoughts. Learning to identify the five components in one's own distress can help target areas for change. "Using the cognitive behaviour model to map out and explain depression may help patients to identify ways of improving their problems" (David, 2010, p. 222). Burns (1999) supports this by stating it is necessary to understand that bad moods are a result of specific kinds of negative

thoughts. Learning to understand the cause of bad moods can make it easier to change the way one feels. In a phenomenological study of womens' conceptions of coping with depression, receiving information "helped them find both structure and hope in their chaotic situation" (Skarsater, Dencker, Bergbom, Haggstrom & Fridlund, 2003, p. 429). Understanding depression by receiving information is a helpful strategy for patients.

Self-Critical and Perfectionistic Thinking

Negative thoughts about one's self are characteristic of depression. David (2010) writes "The negative, self-critical thoughts of low self-esteem can be compared to an internal bully. These thoughts can be very powerful and emotionally distressing"(p.239). According to Greenberger and Padesky (1995):

> Almost everyone who is depressed thinks these types of self-critical thoughts. The thoughts are damaging because they contribute to low self-esteem, low self-confidence, and relationship problems, and they can interfere with our willingness to do things to help us feel better (p. 157)

Negative self-talk often takes the form of perfectionistic thinking. Perfectionists tend to judge their self-worth based on their ability to achieve high standards. When they fail to meet their standards they tend to be self-critical, judge themselves harshly and feel anger, anxiety, depression, guilt and low self-esteem (CCI, 2008, Perfectionistic Thinking). Self-criticism, perfectionistic thinking and low self-esteem are common in depression, and CBT methods involve challenging these negative thoughts with cognitive restructuring techniques. In fact, a review of the CBT literature done by Scott (2001) suggested that CBT used as an adjunct for patients with chronic or residual depression,

despite antidepressant medication, increased their rates of improvement and reduced specific symptoms of hopelessness and low self-esteem in this challenging population.

Withdrawing and Loneliness

Many depressed people feel lonely and isolated. Even when given the opportunity to reach out to others, they are often unable, or unwilling to do so. In a phenomenological study of young people with depression, researchers found withdrawing was a common theme, and retreating from others contributed to their loneliness and isolation. (McCann, Lubman & Clark, 2012). "Hiding away in the bedroom is not uncommon" for depressed people and as a result of poor motivation and lack of enjoyment they will withdraw from social contact, previously enjoyed activities and neglect of their duties (O'Kelly, 2010). Skarsater et al (2003) looked at how women with depression have coped and recovered, and found a similar theme of "Being Part of a Fellowship." Women found being together with others gave them perspective on their life, enhanced their self-reliance and helped restore their health. Avoidant behaviour, such as withdrawing, creates loneliness, which is a common factor in depression. Thus socially reconnecting is a behaviour activation strategy used in CBT.

Anhedonia and Decreased Activity

Anhedonia is a loss of interest or pleasure in doing their usual activities, and is a common characteristic in depression (Greenberger and Padesky, 1995). Typically, activity is connected to how one feels. Depression is associated with being passive and less active, and depressed people tend to stop doing pleasurable activities. Pleasant event scheduling is a common behavioural intervention for depressed clients (O'Kelly, 2010). David states that "increasing activity is a key method of breaking the vicious cycles that

maintain depression…exercise is particularly effective for increasing energy and improving depressed mood" (p.228). Although the link between depression and exercise is not entirely clear, a Cochrane Review titled "Exercise for Depression" which encompassed 1858 participants, showed that exercise improves depressive symptoms (Rimer et al., 2012). Behaviour activation including exercise, fun and activity scheduling are strategies commonly used in CBT.

Rumination

According to general practitioner-psychoanalyst Dr. Greg Dubord, rumination means "over thinking" about something, which is not helpful. Rumination is not the same as "thinking something through", which can be helpful. **"**Rumination is not your friend – it is an unpleasant state that has low yield for a good outcome" (Dr. Greg Dubord, CBT Depression workshop communication, 2012). Whereas worrying is future oriented, rumination is past oriented. Spending a lot of time thinking and worrying about past issues with persistent negative thoughts can make patients feel anxious and low, and can contribute to poor quality sleep (David, 2010). Rumination can result from persistently trying to find the meaning in misfortune. This process has been shown to be inversely related to recovery and positively related to intrusive, distressing ruminations (Martin & Tesser, 1996). "People can ruminate on why things are the way they are, and there is no satisfying answer to this question- we cannot always know the answer to why" (Dr. Dubord, CBT Depression workshop communication, 2012).

Learned Helplessness, Luck versus Habits

The theory of learned helplessness was realized in 1965 with research done by Martin Seligman on puppies. These dogs were given a series of electric shocks whenever

they tried to escape over a partition. Later when the partition was removed, and the puppies could easily escape, many did not even bother to try. These passive dogs were said to have learned helplessness (Nemade et al., 2007). According to Dubord (April, 2011):

> Many people with chronic mood problems have also given up- they've "learned" (concluded) they're helpless. Some patients endured "a series of inescapable shocks" in the past, but in their current lives face only "relatively low partitions" to improving emotional well-being (p. 449).

Burns describes helplessness when someone is convinced they can't possibly do anything that will make them self feel better. They believe their moods are caused by factors beyond their control, such as fate, hormone cycles or perhaps bad luck (Burns, 1999). A goal for treatment is to for patients to realize their helplessness may be more "learned" than real, and to take responsibility for earning a better mood. An important strategy involves illustrating to them the difference between mood determinants they can control, versus those beyond their control that tend to be attributed to either good luck or bad luck. An example of this is people who live in an area that has suffered a natural disaster such as an earthquake, tsunami, flood or tornado. This is bad luck, but not within their control. Practicing healthy behaviours that earn a better mood such as proper nutrition, regular exercise and good sleep habits, are behaviours that are within their control, and may make a positive difference in managing their depression.

Fallacy of Fairness

Burns (1999) discussed the fallacy of fairness by stating that one's perception of what is unfair or unjust is the ultimate cause of most, if not all anger. He states that that

there is no such thing as absolute fairness or a universally accepted concept of fairness and justice. Rather, fairness is relative to a set of standards and a frame of reference that is unique for each person. Although personal and social moral codes do exist and are important, everyday anger results when personal wants are confused with general moral codes. This typically occurs when something happens or someone acts relative to a set of standards, or a frame of reference that is different from one's own. "The whole dispute is based on the illusion of absolute fairness" (Burns, 1999, p. 162). Dubord (2011) states the fallacy of fairness should be disputed and we should emphasize to depressed people that the "why me" question will never have a satisfying answer (April 2011).

Assertiveness

People with depression often deal with challenging situations by losing their temper, saying nothing at all, or giving into others' demands (Centre for Clinical Interventions-Assertiveness, 2012; David, 2010). Assertiveness is a powerful antidote for the disabling effects that depression can have on one's ability to communicate. Assertiveness is associated with self-esteem, as it involves an awareness of one's own worth, to have one's own opinions and to be able to say "no" when needed . It helps someone take responsibility for their own feelings and behaviour. Teaching assertiveness to depressed adolescents is an especially powerful tool. For many adolescents, being either too meek or too aggressive is a problem that can compound or exacerbate the already difficult situation (Clabby, 2006). Understanding the importance of being assertive and learning these new skills is a common strategy in CBT.

Procrastination

Procrastination is a common part of human nature. However, problematic procrastination can be distinguished from more general procrastination, by how bad the

negative consequences are for not following through on thing (Centre for Clinical Interventions-What is Procrastination?, 2012). Burns (1999) writes "many people procrastinate and become immobilized when they feel anxious or depressed" (p. 169). Procrastination can be associated with passive-aggressive behaviour and/or unassertiveness. People procrastinate because they agree to do things they do not really want to do, or are unable to say "no", or openly express their negative feelings (Burns, 1999). Understanding and challenging the thinking behind procrastination is a strategy of cognitive restructuring often used in CBT.

Poor Problem-Solving Ability

Poor problem solving ability is the final characteristic reviewed**.** A problem-solving approach is useful when people attribute their depressed mood to the presence of practical problems and life stresses (Dr. Dubord, CBT Depression workshop communication, 2012). Sometimes it can be therapeutic just to identify what their problems are, thus making them seem more understandable and manageable. Using a problem-solving approach can give someone control over these issues and offer hope, which can improve mood. Clabby (2006) states that when poor social-problem-solvers (adolescents) are highly stressed they feel helpless, depressed, and are at risk for suicide. A study of adolescents comparing group social-problem-solving to supportive counseling found the social-problem-solving intervention to be more effective in reducing depression, hopelessness and loneliness even 3 months later (Lerner, 1990). Teaching problem-solving skills is strategy that is fundamental to helping depressed people deal with their daily problems and is used in CBT.

Depression in the PHC Setting

Mood disorders are among the most common afflictions that bring patients to their PHC provider's office, and most clinicians will be involved in the care of their depressed patients (Remick, 2002). In a cross sectional survey of family physicians across the London Ontario area, 163 family physicians reported spending a substantial portion (26-50%) of their time during patients visits addressing mental health concerns (Collins et al., 2006). Of these patients with mental health issues, 51-75% were seeing their PHC provider for depression, making it the most common mental health concern.

Improved access to mental health care is an important goal for Ontario. As outlined in the Ontario Ministry of Health and Long-term Care Discussion Paper "Every Door is the Right Door" (July 2009) addressing the mental health needs of Ontarians, they state every person should have access to high quality, consistent, evidence based treatments and supports.

> Although every door should be the right door to get people to the right services, some doors are better than others. For example, family health providers – family doctors and nurse practitioners – are the first point of contact with the health system for most people. They are an efficient door because they can assess and treat some mental illnesses and addictions, make referrals, and link people to a range of other health and social services (focus area 3.1, p. 35).

Depression in the PHC setting will be reviewed from a patient perspective, a PHC provider perspective and with CBT as a treatment of choice.

Patient Perspectives of Depression in PHC

Most patients prefer having choices regarding the management of their depression, and many patients prefer psychotherapy over taking medication (McCann and Lubman, 2012; McNaughton, 2009; Skarsater et al., 2003). Skarsater's (2003) study of women coping with depression found the women wished health professionals would take a more holistic view of their life situation, and expressed a preference for psychosocial inputs over treatment with only drug therapy. Psychotherapy options such as CBT are also a preferred choice over pharmacotherapy among adolescents (McCann & Lubman, 2012). In a phenomenological study done in Australia, McCann and Lubman (2012) found that a theme emerged of young people (average age 18 years) preferring clinicians to use primarily psychosocial therapies, with only the judicious use of antidepressants. In the elderly population, depression is commonly managed in PHC, but the fear of side-effects from antidepressant medications often results in PHC providers using sub-therapeutic doses (Laidlaw et al., 2008). In Canada, "The National Population Health Survey" reported the use of antidepressant medication has escalated, with about 5% of Canadians over the age of 15 years taking antidepressants (Patten, 2004). However, patients' access to evidence-based psychotherapy such as CBT has not improved proportionately (Collins et al, 2006).

Pilgrim and Rogers (1993) found patients prefer to have their care for mental health issues with their physician over going to a specialist, because of the continuity of care and the perception that their provider has a shared lay view of mental health problems (as cited in Rogers, May & Oliver, 2001). Rogers et al (2001) also found patients preferred to receive care within PHC and the fear of secondary services, the

anticipated stigma and a perceived further step-from-normalcy made PHC highly valued. Paradoxically, patients' expectations about their PHC physician's time constraints and suspicions that their physician was not qualified to offer "talk treatment" lowered their expectations on the type or quality of care they would receive for their depression (Rogers et al., 2001). In summary, many patients have a preference for managing their depression with psychotherapy, rather than medications, and for obtaining their mental healthcare in a PHC setting, in spite of their lowered expectations.

PHC Providers' Perspective of Depression

Looking at the experiences of physicians treating depression, Rogers et al (2001) found they felt pessimistic in their capacity to help patients. These physicians felt there was little they could offer patients beyond prescribing anti-depressant medications, and that secondary services were overwhelmed with the more serious mentally ill. In the London Ontario family physician survey reviewed earlier, 85% of the family physicians prescribe antidepressant medications to their patients but only 40% offer counseling (Collins et al, 2006). Of these family physicians that offered counseling, 33% said they provide CBT, however, they reported having little training. There was a moderate interest expressed in obtaining some CBT training. Collins concluded that "training in evidence -based treatment of depression is particularly warranted, given physicians limited knowledge of CBT" (p. 879). Wiebe and Griever (2005) found that PHC physicians in British Columbia and Ontario saw CBT as a useful part of practice. After attending a five-hour seminar on CBT these physicians were able to implement elements of CBT.

There are recent shifts in policy with the organization and direction of mental health services moving more into the PHC setting. With these shifts and changes, the role of the PHC provider needs to be considered, especially as it relates to offering recommended therapies such as CBT. In particular, the expanding role and autonomy of PHC NPs need to be considered as they have not only the capability and competence, but often the flexibility within their practice to deliver CBT.

CBT as a Recommended Treatment of Depression

Clinical practice guidelines are developed to assist practitioners with making appropriate, evidence-based decisions regarding patient care. They should improve quality of care by decreasing inappropriate variation and simplifying the application of research evidence to everyday practice (Cabana et al, 1999). In 2004, in response to the UK's comprehensive vision for improved mental health care, The National Institute for Clinical Excellence (NICE) developed evidence-based treatment guidelines for mental health illnesses such as depression (Clark, 2011). This was a seemingly pioneering event in the management of depression. Many other countries including Canada have followed suit with similar guidelines, although the NICE guidelines are often referenced in the literature. The NICE guidelines recommend treating mild to moderate depression with psychosocial interventions such as CBT, rather than with antidepressant medication. CBT was also recommended for people with persistent sub-threshold depressive symptoms. For moderate to severe depression, the combination of antidepressant medication and psychotherapy such as CBT, at a high intensity was recommended. People who were considered at risk for relapse should also be offered CBT (Clark, 2011;

NICE 2009). The NICE guidelines offered an organized, stepped-approach document that clearly outlined the importance of CBT for treating depression.

In Canada, in 2009, the Canadian Network for Mood and Anxiety Treatments (CANMAT), a not-for-profit scientific and educational organization, published the revised edition of "Clinical Guidelines for the Management of Major Depressive Disorders in Adults" (Kennedy, Lam, Parikh, Patten & Ravindran, 2009). These guidelines recommend the use of psychotherapy such as CBT; however, it identifies patient, provider and system factors that will influence the decision of when and where to employ CBT. Patient factors include specific patient populations, patient preferences and the ability of the patient to engage in the treatment. Provider factors include the ability of the provider to deliver the chosen psychotherapy of sufficient quality and quantity to meet the patient's needs. System factors include ease of availability and possible cost. The guidelines recommend CBT for acute and maintenance phases of depression. Second-line recommendations included self-help CBT (bibliotherapy) and computer-based/internet delivery of CBT. Although these treatment options were shown in the guiding literature to have several advantages (effective over doing nothing, ease, less costly, self paced, convenience,) it is recognized that the low motivation and energy experienced by depressed people may compromise adherence, as retention rates were often low. The guidelines suggested significant benefit could be achieved if augmented by a clinician for guidance and support. For major depression, concurrent psychotherapy with antidepressant medication was superior to antidepressant therapy alone (Parikh et al, 2009). Although CBT is a recommended first-line therapy, the Canadian guidelines, unlike the NICE guidelines, do not separately address mild to moderate depression.

The American Psychiatric Association (APA) also endorses the use of CBT as a stand-alone first treatment for patients with mild to moderate depression (APA, 2010).

Cognitive Behaviour Therapy

CBT has risen in popularity since the late 1990s and the literature is abundant. CBT is a specific, brief psychotherapy aimed at empowering depressed patients by teaching them the skills to challenge and offset their depression (McGinn, 2000). CBT focuses on how someone thinks (cognitive) and acts (behaviour). The concept behind CBT is that one's thoughts about a situation, not the situation itself, affect how they feel (emotionally and physically) and behave (David, 2010; O'Kelly, 2010). It is not the situation that causes the feelings and behaviours, rather the meaning they give to the situation. The behaviour aspect of CBT involves strategies that promote behaviour activation by identifying and changing unhelpful behaviours that maintain or worsen depression (David, 2010). Altering behaviour is a powerful strategy to break the vicious cycle of the negative behaviours that worsen depression, and to make positive change.

In essence, CBT involves 1) learning that mood, behaviours, thoughts and physical reactions are all connected and interrelated and if you change one it will affect the others 2) learning to recognize inaccurate or unhelpful thoughts and challenge them and 3) behaviour activation strategies (David, 2010; Greenberger & Padesky, 1995; O'Kelly, 2010). Sessions are focused and highly structured, with the review of client's homework, teaching of new techniques and assignment of further homework. Both the efficacy of CBT, and the rationale for why PHC is an appropriate setting for CBT, has been well documented and is reviewed. Patient and PHC provider perspectives on CBT are also reviewed, as well as the potential role for PHC NPs.

Efficacy of CBT in PHC

The literature is clear that CBT is as effective as antidepressant medication, if not better, and this holds true for CBT in primary care (Churchill et al., 2001; Heifedt et al., 2011; Parikh & Lam, 2001; Whitfield & Williams, 2003). Various patient populations, including different age groups, depressed patients with treatment-resistance to medication and adults with previous suicide attempts have separately addressed CBT effectiveness. With adults aged 65 years and over, it was shown to be an effective stand alone treatment for mild to moderate depression in PHC, and a useful treatment choice for those who cannot tolerate, or will not tolerate pharmacotherapy (Laidlaw et al., 2008; Scogin & McElreath, 1994). In the Treatment for Adolescent with Depression Study (TADS) of 439 adolescents with major depression, results showed the combination of fluoxetine and CBT accelerated recovery in their acute phase more than either treatment alone. Fluoxetine alone, however, had higher rates of new and alarming suicidal thinking or behaviour than either CBT alone, or the combination treatment arm. This suggests CBT provided some protection against suicidal ideation. In the maintenance phase of the study (weeks 18 to 36), the benefit of CBT "caught up" to fluoxetine which supports the hypothesis, also supported in adult studies, that the strength of CBT is greater in follow up for patients with major depression (Bonin & Moreland, 2012). Clinically, the benefit of CBT preventing suicidal ideation in adolescents is significant. This potential risk with adolescents and antidepressant use is reflected in the United States Food and Drug Administration (US FDA) issuing a black-box warning, the most serious type of prescription drug warning, for children and adolescents up to age 25years on antidepressant medications (U.S. FDA, 2007). Other adolescent studies have also shown

that CBT is beneficial in preventing depression relapse (Bonin & Moreland, 2012). A review of studies in both adolescents and adults showed relapse rates are high in patients when withdrawn from pharmacotherapy, but the lasting benefits of CBT is as effective as keeping patients on medication. (Heifedt et al., 2011; Hollan et al., 2005). Finally, CBT has also been shown to be effective in preventing repeat suicide attempts for adults who recently attempted suicide (Brown et al., 2005).

Patient Perspective of CBT

Many patients prefer psychological treatments over taking medication which emphasizes the importance of having options such as CBT available (Chilvers et al., 2001; Haddad, Rogers & Gournay, 2007; Hoifodt et al., 2011; McCann & Lubman, 2012). In a United Kingdom community, 91% of respondents thought depressed people should be offered psychotherapy (Priest, Vize, Roberts, Roberts & Tylee, 1996). Chilvers (2001) showed patients choosing psychotherapy did better than those randomized to it, suggesting patients should be able to have their preferred choice of treatment. A small qualitative study was done by Nilsson, Svenson, Sandell and Clinton (2007) with 14 patients and their experiences with CBT. The satisfied patients acknowledged that motivation was necessary for bringing change. They felt CBT helped them develop new coping tools, and they regained a sense of normalcy again by retaking control over their life. The dissatisfied patients described limited positive change and felt they would have preferred a therapy with a different focus, such as more emphasis on reflection and understanding, as they wanted to talk more about their problems which is not characteristic of CBT. This study highlights again the importance of matching patients with their preferred style and choice of therapy.

CBT has been widely recognized as an effective treatment in late-life depression, yet the use of CBT in this age group remains uncommon (Laidlaw et al., 2008). There are erroneous beliefs that older people may lack the mental ability to change, or they may not want therapy. In fact, older people have reported very positively towards psychotherapy as a treatment for depression.

PHC Providers Perspective of CBT

The literature on healthcare providers' experience with using CBT in PHC shows mixed findings with supports both for and against (King, Davidson, Taylor, Haines, Sharp, & Turner, 2002; Newton & Yardley, 2007; Philip, Lucock & Wilson, 2006; Wiebe & Greiver, 2005). Providers also need to be motivated for the successful delivery of CBT. Self-selected providers who were inclined to offer CBT in their practices seemed to have a more positive experience. King et al. (2002) showed that after physicians were randomized to receive either a brief CBT training package or a control group, there was no discernible impact in knowledge or attitude toward depression, or on patient outcomes between the two groups. This study ran counter to most other study findings, but it also had several flaws with a high drop-out rate of physicians (almost 25%). After doing their own study, Wiebe and Greiver (2005) reflected that King's high drop-out rate likely occurred because the less motivated physicians excused themselves after randomization. Wiebe and Greiver's study of self-selected physicians showed that after a 5-hour seminar on CBT, most of them found CBT to be a useful part of practice, and were still using elements of CBT 6 months later. The type of CBT training between these two studies differed. In the study by King et al. the physicians were taught by psychologists, while Wiebe and Greiver offered training by family physicians who were using CBT in their

own practice. Wiebe and Greiver also used small group, interactive workshops with role-playing practical ways to use CBT to address concerns that are common in family practice. An Australian program offering 40 sessions of CBT training, one hour per week to any interested inpatient or community mental health clinician (psychiatric nurses, occupational therapists, psychiatric trainees and social workers), found that even two years after the training, 88% had documented evidence of using CBT (Newton & Yardley, 2007). Of these clinicians, 38% had implemented structured CBT interventions that showed progressive change for patients. From a nursing perspective, a British NP did an evaluation of guided self-help CBT for depressed patients in her PHC setting to determine feasibility and effectiveness. She found significant improvement in patient outcomes, and that it was easy for the NP to determine the suitability of patients for this type of guided CBT (Philip et al., 2006).

Barriers to Using CBT in PHC

Across the literature, several studies show that healthcare providers have frequently identified barriers to implementing CBT in PHC (Aschim et al., 2011; Kramer & Burns, 2008; McNaughton, 2009; Wiebe & Greiver, 2005). Barriers included: 1) a lack of quality patient handouts 2) physicians who work fee-for service stated there was a lack of financial incentives as reimbursement was not sufficient for the time requirement of CBT, 3) lack of time to do CBT 4) interruptions in the office 5) the perception that some patients were poor candidates for CBT 6) lack of confidence in their skills to provide CBT and 7) perceived poor organizational support for training. As previously mentioned, a barrier in using CBT with the elderly population is the erroneous belief that this age group lacked the mental plasticity to make changes and thus benefit from

psychotherapy (Laidlaw et al., 2008). Kramer and Burns (2008) did a case study of a multi-faceted implementation strategy to deliver CBT to depressed adolescents at two American outpatient mental health centers. They found that the implementation of CBT was a "complex, dynamic and chaotic process" that had many barriers at the patient, provider and organizational level. They also found there was an interaction between activating and inhibiting variables including the attitudes, inclination and satisfaction of the providers, appropriateness of the patients for this type of intervention and the organizational buy-in. This study also suffered high drop-out rates of clinician participants, again suggesting the difficulty in trying to randomize providers to do a type of psychotherapy that they may not be inclined to do in their style of practice.

Facilitators for Using CBT in PHC

The literature identified several facilitators for using CBT in the PHC setting. (Aschim et al., 2011; Philip et al., 2006; Newton & Yardley, 2007; Wiebe & Greiver, 2005). Wiebe & Greiver found successful strategies to overcome barriers included incorporating CBT into regular office visits and keeping appointment times short and structured helped to address the problem of interruptions within the office. As a confidence building measure they suggested reviewing CBT course material right after workshops and then waiting for "easier" patients to start with. Philip et al. (2006) suggested using inclusion/exclusion criteria or screening questionnaires to help determine the suitability of patients for CBT. They suggested determining the suitability of practitioners should be based on who has the skills and capacity to deliver CBT in a cost-effective manner, but it depended very much on the interests of the practitioner. They also recommended that CBT be prioritized or integrated into the routine work of primary

care practitioners, such as those supporting chronic disease clinics. Having easy access to good quality patient handouts and having practice-based training for providers with ongoing supervision was also recommended. Properly tailored training programs were also a facilitator to implementing CBT.

The cost effectiveness of CBT both to the patient and the healthcare system should also be considered a facilitator. For patients, it is very cost-effective to be able to receive CBT in their own PHC providers' office as they will have no additional out-of-pocket expenses. Evidence has demonstrated that CBT is more cost-effective than optimal drug treatment for depression (Hunsley, 2002). Over a 2 year period, drug therapy is estimated to cost 30% more than CBT and have a substantially higher drop-out rate. Differentiating which PHC providers are most cost-effective to deliver CBT is a necessary consideration. Financial constraints of fee-for-service remuneration have been shown to be a barrier for CBT, thus suggesting other reimbursement models may act as a facilitator (Aschim et al., 2011; Wiebe & Greiver, 2005). PHC NPs have been shown in the literature to be a cost-effective alternative for delivering healthcare in the PHC setting (Bauer, 2010; Nurse Practitioner Association of Ontario, 2011; Venning, Durie, Roland, Roberts & Leese, 2000). This delivery of healthcare can include CBT as evidence-based treatment for patients with depression.

Role of the PHC NP in the Utilization of CBT

A review of the literature on CBT in PHC reveals it has been predominately influenced by physicians and mental health clinicians, such as therapists and psychologists. From a nursing perspective, Childs-Clarke refers to two studies involving psychiatric nurses. One study discussed nurses who were trained in CBT and shown to

be effective in a PHC setting. The other study involved community psychiatric nurses without any CBT training and were found to be no more effective than routine physician care. The author concluded the effectiveness of using psychiatric nurses for CBT could be linked to the specific psychological models that were used (Child-Clarke, 2007).

The Mental Health Commission of Canada (2012) states:

> As the role of primary health care in mental health expands, it will be important for all family physicians and other primary health care providers to work in new interdisciplinary ways and to possess core mental health competencies that are oriented to recovery and well-being (Priority 3.1, p. 55).

The role of the PHC NP is rapidly evolving and may represent opportunities to overcome some barriers to utilizing CBT in PHC. The Nurse Practitioner Association of Ontario is endorsing a CBT Medical Certification Program for Advanced Practice Nurses in collaboration with CBT Canada (NPAO, 2102b). This program focuses on practical "medical CBT" which was developed to be applied in normal medical appointments in PHC. It is the same CBT program this author completed and was pleased with. The CNA (2008) asserts "the demand for collaborative, innovative clinical practitioners to act as leaders in health care has never been stronger. Nurses in advanced nursing practice roles are well positioned to respond to the evolution of health care" (p. 2). The adoption of CBT into PHC represents a new field of opportunity for NPs.

Diffusion of Innovations Theory

Much of the research about the uptake of evidence-based interventions into actual practice has used Rogers' Diffusion of Innovations Theory to describe and examine the associated variables (Berwick, 2003; Dobbins et al., 2002; Kramer and Burns, 2008).

Diffusion of Innovations Theory takes a different approach to other theories of change in that it is not the people who change, but rather the innovations themselves. Instead of persuading individuals to change, it sees change as being primarily about the "re-invention" of products and behaviours so they become better fits for the needs of individuals and groups (Robinson, 2009). This is an important point when looking at the development of an innovation tool, such as in this advanced nursing project.

The Diffusion of Innovation Theory believes the population can be broken down into five different segments, depending on their likelihood of adopting a specific innovation: Innovators, Early adopters, Early majority, Late majority and Laggards (Berwick, 2003; Robinson, 2009). "Innovators" (2.5% of population) are the fastest-to adopt group. They tend to be adventurous and fascinated with novelty. Berwick writes, that in healthcare these are often the mavericks or the providers that are heavily invested personally in a specialized topic. "Early Adopters" (13.5%) are self-conscious experimenters who speak with "Innovators" and pick and choose what they would like to try out. In health care they are often leaders or representatives of a clinical group. "Early Majority" (34%) are the people who watch the "Early Adopters" and learn mainly from them as people they know and trust. They rely on personal familiarity, more than science or theory, to decide to try something new. In healthcare, these are the providers who are ready to try innovations that meet their immediate needs rather than those that are simply interesting ideas. "Late Majority" (34%) people will adopt a new innovation when it appears locally to be the new status quo. In health care this could be when an innovation now has become the standard of practice. Finally, the last segment of people are called "Laggards" (16%). They are usually resistant to change, and in healthcare are often the

providers who swear by the tried and true way of doing things. The Diffusion of Innovation Theory asserts it is not the goal to motivate people to shift from one group to another, but rather for the innovation to evolve to meet the needs of successive segments.

The Diffusion of Innovations Theory describes the process by which an innovation is communicated through certain channels among the members of a social system and includes five stages: Knowledge, Persuasion, Decision, Implementation and Confirmation. The complex interrelationship among these five stages and the four characteristics of: the innovation, the individuals involved the organization and the environment describe how research evidence progresses from dissemination to research utilization (Dobbins et al., 2002). Thus, the interaction between these variables determines the rate of adoption of an innovation.

The theory of the Diffusion of Innovations started in sociology but has spanned multiple disciplines. In healthcare, innovations include instruments, equipment, drugs, procedures, services and programs (Dobbins, Ciliska, Estabrooks &Hayward, 2005). The diffusion of innovations in all industries of healthcare is often a major challenge, and the rate can be very slow, if at all (Berwick, 2003).

Framework for Adopting an Evidence-Based Innovation

As discussed above in the Diffusion of Innovation Theory, the uptake of evidence into practice, involves complex processes. Based on the Diffusion of Innovations Theory, Dobbins et al., a group of nursing researchers, developed a comprehensive framework for the dissemination and utilization of an evidence-based innovation in healthcare (see Appendix A). Their framework depicts characteristics of: the innovation, the environment, the organization and the individuals that influence the decision to adopt

and implement an innovation in an effort to change practice within an organization (National Collaborating Centre for Methods and Tools, 2010). A series of questions are asked at each of the five stages of Roger's Diffusion of Innovation theory, which are helpful to guide decision-makers through the process of whether or not to adopt an evidence-based innovation into their organization. The National Collaborating Centre for Methods and Tools (2010) reviewed this framework and stated:

> This framework is helpful when considering: how to select evidence-informed innovations, which barriers and facilitators influence decision to adopt an innovation: how to plan tailored interventions to facilitate the implementation of the innovation; and how to evaluate the processes and outcomes associated with innovation adoption (Description section)

Dobbins et al.'s framework was utilized to guide the development and implementation of this project's CBT innovation. The theoretical framework is integrated directly into the format of this written document as the characteristics of the innovation, individual, organization and the environment reflect the format followed for the innovation's development. The framework also was reflective of the project's methodology as it progressed through the five stages: Knowledge, Persuasion, Decision, Implementation and Confirmation.

PRESENTATION OF ADVANCED PRACTICE

This section describes the development and implementation of a structured format of brief CBT methods which were created in an effort to overcome barriers, and facilitate the delivery of CBT by PHC providers for patients with depression. In response to the identified need for CBT to be available for patients with depression in the PHC setting, this author sought training in learning and applying CBT, in particular "medical CBT". She had previously taken two orthodox CBT courses and passed the certification exams but experienced difficulty in applying orthodox CBT methods in short PHC appointment times. "Medical CBT" is the term used by CBT Canada to describe the adaption of orthodox CBT to short techniques which are more amenable to PHC (CBT Canada, 2012). There are other resources that also promote using brief CBT methods, including Lee David's book "Using CBT in General Practice: The 10 Minute Consultation" (Whitfield & Williams, 2003; Williams & Whitfield, 2002). This author took all four workshops towards achieving certification in the Medical CBT Certification Program, which is also endorsed by the Nurse Practitioner Association of Ontario. These brief CBT methods were very effective and easy to apply in PHC, but found to be limited in their overall comprehensiveness to address the many factors in depression. As such, a CBT innovation was developed that offers a format for the delivery of brief CBT methods as they apply to the ubiquitous elements of depression. This was done in an effort to address depression in a more comprehensive manner. The CBT innovation tool is essentially a deliverable patient program that is structured around eight sessions that address the common factors of depression, using CBT. Each session was formatted to contain step-by-step provider "user-guides" and all the patient handouts and worksheets that are needed for the session's topics are included (see Appendices F, G, H).

The objectives of this project were to:

1) Develop a format for the delivery of brief CBT methods (CBT innovation) that was feasible in the PHC setting

2) Increase PHC providers' confidence and knowledge to implement CBT and

3) Increase the uptake and adoption of CBT in PHC.

PHC providers implementing the CBT innovation were surveyed to evaluate their attitudes, values and knowledge with CBT in addition to their experience with the tool. Questionnaires addressed the following:

1) Provider satisfaction with their care of depressed patients

2) Provider attitudes about CBT and its suitability for their practice setting

3) Provider satisfaction with the CBT innovation tool

4) Provider satisfaction with the CBT training they received to implement it

5) Provider confidence level in their CBT skills

6) Utilization rates of the CBT innovation and

7) Barriers perceived to using CBT

The evaluation around pre-implementation barriers was included to determine if these PHC participants' barriers were consistent with those identified in the literature, and to assess if the CBT tool was successful in overcoming any of the pre-identified barriers. Originally the intent was for this tool to be developed to assist only this author and one other PHC NP in their adoption of CBT into clinical practice. It was decided to offer this opportunity to other interested PHC providers, to enrich the data with their feedback about the CBT innovation tool, and the strategies required to get it disseminated into practice. For the purpose of this project, therefore, implementation was limited to a pilot

evaluation with data collected from 9 participants who completed a questionnaire both pre and post implementation. The author's evaluation was not included in the questionnaire results. Research Ethics Board approval was obtained from Laurentian University and every participant signed an informed consent form (see Appendix D and E). It was reviewed at the Group Health Centre, the organization where this pilot evaluation was conducted, and determined that ethics approval was not required as CBT is considered the standard of care.

The development and implementation of this project followed the comprehensive framework by Dobbins et al.(2005) for the adoption of an evidence-based innovation into clinical practice, and into an organization. This framework follows, in order, the five stages of Knowledge, Persuasion, Decision, Implementation and Confirmation. The performance indicators used to evaluate the success of CBT adoption are addressed at various points throughout these stages in the framework. Evaluation was completed with questionnaires for the participants prior to the initial CBT training session (pre-implementation) and then again 3 months later (post-implementation). This was done to obtain a baseline assessment of the PHC providers' attitudes, values and knowledge of CBT, and then to allow them to settle in and trial their new skills.

Knowledge Stage

The innovation adoption process starts with the knowledge phase. This includes the identification of relevant evidence about a new healthcare intervention, and an appraisal of the quality of that evidence (Dobbins et al., 2005). In this case, the healthcare intervention is a new model for CBT delivery. According to Dobbins et al., the most highly synthesized resources should be sought first. The top of the resource

hierarchy includes systems, such as clinical practice guidelines or evidence-based textbooks. The next level of evidence is systematic reviews, followed by single studies. The knowledge phase starts with the identification of a problem in either clinical practice or a healthcare system that leads to a search of the literature for a potential solution.

In this author's clinical practice as a PHC NP, the problem emerged as a result of the simple screening questions asked routinely during general patient assessments. These two questions were "How's your mood? Do you feel you are coping with life on a day-to-day basis?" The number of people who answered that their mood was low and they were struggling to cope was surprising. This ranged on a spectrum from very mild to more severe levels of dysfunction. A review of the depression literature demonstrated, that CBT was recommended as a first-line treatment. This author's also noticed that access to psychological therapies such as CBT were limited due to cost, stigma and unavailability of services. Even though CBT was explained and recommended to patients, very few actually received it. Further review of the literature showed CBT to be practical in PHC; notwithstanding some identified barriers, but also some facilitators (Churchill et al., 2001; Hoifodt et al., 2011; McNaughton, 2009; Waller & Gilbody, 2009; Whitfield & Williams, 2003). Since this literature search identified high quality evidence supporting the use of CBT in PHC for treating depression, the next stage in the framework, "Persuasion," was entered.

Persuasion Stage

The second stage of Persuasion involves individuals and decision-makers forming attitudes towards the innovation. This is a very critical stage since this is when consideration to the consequences of adopting, or not adopting the innovation, are

reviewed. These attitudes are based on the characteristics of 1) the innovation itself 2) the individuals involved 3) the organization and 4) the environment (Dobbins et al., 2005). In the following pages, these four characteristics will be expanded upon in more detail, as they all influence each other, and ultimately guide the decision-making process. The information about the consequences of adopting is usually sought from peers who have already adopted the innovation. If their experience was positive, and if the innovation is thought to be relevant and consistent with both the individual's attitude and the perceived attitude of the organization, then motivation to adopt this innovation increases (Dobbins et al., 2005). Within the Persuasion Stage, many individuals have the ability to exert influence and shape their organization and environment. In this pilot evaluation, this author was the individual who started the process of persuasion and quickly had buy-in from decision-makers within her organization. The decision-makers in this project are the PHC providers who will be deciding whether or not to implement CBT within their healthcare practices, and the organization's management team who will be needed to support the uptake of this evidence-based treatment.

The Persuasion stage has considerable breadth as it explores the characteristics of the innovation, the individuals involved, the organization and the environment, and how these four factors influence the innovation adoption process. All nine participants were asked to complete a questionnaire prior to any CBT training or implementation of the CBT tool. The purpose of this pre-implementation questionnaire was to assess the individuals' perceptions of these four characteristics at baseline. The results of the pre-implementation questionnaire will be discussed in each of the characteristic's pertaining section but can also be viewed in entirety in Appendix B.

Innovation Characteristics

Characteristics on the innovation are one on the most influential factors in determining if it will be adopted. "Perceptions of an innovation predict between 49%-87% of the variance in the rate of spread (Berwick, 2003). According to Dobbins et al. (2005), characteristics of the innovation that influence its adoption are associated with the five attributes of 1) relative advantage 2) compatibility 3) complexity 4) trialability and 5) observability. The likelihood of an innovation being adopted is increased if it has relative advantage over the status quo, is consistent with the values and needs of the potential adopters, is easy to understand and use, is able to be implemented on a small scale to test for feasibility and is able to be evaluated using performance indicators (Berwick, 2003; Sibbald, 1997). In a successful adoption process, the original innovation itself usually mutates into many different, but related innovations, which require the innovation to be "adapted" or "re-invented" to meet the local individual users' needs (Berwick, 2003; Robinson, 2009).

For this CBT project, the characteristics of the innovation are a key consideration since this undertaking included the development of a new innovation (new format for CBT delivery) which entailed more than just the uptake of an already existing tool/practice. According to the diffusion literature, it is likely the original CBT innovation will require some adaptation or reinvention for successful adoption to be achieved (Berwick, 2003).

Relative advantage. Relative advantage refers to "benefit", or the perceived benefit of making a practice change. Berwick (2003) states this is the most powerful attribute of the innovation and individuals are more likely to adopt an innovation if they

think it can help them. He also cautions, however, that individuals typically avoid novelty, especially unfamiliar changes, as these bear an extra burden of proof to show benefit.

The relative advantage of this CBT innovation is addressed in terms of economics, access and satisfaction. The current status quo for patients to obtain CBT in our organization and community has barriers of decreased access due to cost, stigma and limited services. This CBT innovation could be available to patients through their PHC provider which represents the advantages of ease of access, and obtainment of the treatment at no extra cost to the patient. The relative advantage for PHC providers using this CBT innovation is that it aims to provide them with a deliverable format for CBT.

The pre-implementation questionnaire for the nine participants showed seven of the nine either agreed or strongly agreed that CBT is an effective treatment for depression. Furthermore, six participants agreed or strongly agreed that PHC was an appropriate setting to do CBT (two were neutral and one participant did not provide an answer). This suggests there is a perceived relative advantage, or benefit, for providers to adopt CBT into practice.

Compatibility. The compatibility of an innovation addresses the consistency between the innovation and the potential adopter's current needs, values, beliefs and past experiences. The literature has been clear that, to be successful in implementing CBT, providers need to have the desire and inclination to want to offer this type of therapy (Kramer & Burns, 2008; Philip et al., 2006; Newman & Yardley, 2007; Wiebe & Greiver, 2005). CBT is a type of psychotherapy that is not routinely taught in medical or nursing curricula, and is only sought when there is a need or desire to learn these skills.

This type of therapy needs to be viewed as relevant to a provider's needs for successful adoption to take place.

There is the potential for increased satisfaction for PHC providers in having a format that makes it feasible to offer effective, comprehensive care to depressed patients in PHC, if this is consistent with their values and needs. Compatibility is measured by assessing providers' level of satisfaction with their care of depressed patients (needs) and as previously reported under Relative Advantage, their attitudes and beliefs around CBT (values).

The findings of the pre-implementation questionnaire showed that among the nine participants, four were dissatisfied with the current care of their depressed patients, three were neutral and two were satisfied (needs). Among the nine participants, only two at baseline indicated they perceived a potential barrier of their depressed patients not being motivated enough to do CBT. These findings suggest there may be compatibility for CBT in increasing providers' satisfaction with their care of depressed patients.

Complexity. The complexity attribute refers to the degree to which the innovation is perceived as easy to understand or use. Simple innovations generally spread faster than complex ones (Berwick, 2003). Addressing the complexity attribute involved the development of an innovation with an ease-of-use format for PHC providers and patients doing CBT. This was met by creating step-by-step "user guides" for each session for the providers to use, with "talking tips" for each topic introduced. The goal was to offer simplicity. Providers can read right from the user-guide script when they are with patients, which allows for a simple and practical approach to understanding the

issues that are being addressed. This strategy may help promote provider's confidence, which was a barrier in the literature (Aschim et al., 2011; Wiebe & Greiver, 2005).

This CBT innovation was developed to be delivered over eight sessions, also for simplicity, but with an evidence base. Whitfield and Williams (2003) reviewed the literature and found that most improvement in CBT occurs in the first eight sessions, and further gains are relatively low if treatment continues (Barkham et al, 1996; Scott, 2001). They challenged the tradition of offering CBT over 12-16 sessions that were 1-hour long, as based on tradition rather than evidence (Lovell & Richards, 2000). To address the attribute of complexity further, the development of this CBT innovation limited CBT to only brief methods, without attempting to explore deeper into a patients' core schema (underlying core beliefs and assumptions of their negative belief patterns). In an analysis done by Jacobson et al. (1996) of the most effective components of CBT treatment for depression, they found that doing just behaviour activation and teaching patients' skills to modify negative automatic thoughts, was as effective as traditional "full treatment CBT," that tends to delve deeper into patients' core schema. They stated that using just these two components of CBT was more parsimonious, and may be more accessible to less experienced providers. As such, this author's CBT innovation was designed to incorporate behaviour activation strategies and methods to recognize and challenge negative automatic thoughts. Finally, in an effort to address another identified CBT barrier, and to provide ease-of-use, good quality patient handouts were included in each session of the CBT innovation (see Appendices G and H). Web based CBT resources were searched, and copyright permission was obtained as needed from the originator.

The pre-implementation questionnaire assessed participant confidence and perceived proficiency with doing CBT as a measure of their CBT skills. In terms of confidence in their current level of skill for implementing CBT, six of the nine participants assigned themselves a rating of "none to low" while three rated their confidence in the "moderate to good" range. Their perceived proficiency level in providing CBT was rated as poor by three of the participants, four as fair and two as good (knowledge/skills). Participants also indicated that three of them had taken some previous CBT training but six had none. These findings indicate the majority of participants had a low level of confidence and fair-to-poor knowledge and skills at baseline, thus reinforcing the importance of a simple CBT innovation tool, with ease-of-use.

Trialability. Trialability, as an innovation characteristic, refers to its ability to be trialed on a small scale to determine its advantages or disadvantages, with a positive association for innovation adoption if this can be done (Dobbins et al., 2005). At an individual level, this means one can find a way to test out the change on a small scale without having to implement it everywhere at first (Berwick, 2003). This CBT innovation was developed and then trialed in this author's own family practice, initially with three patients. A PHC NP colleague, who also had training in CBT, then trialed it in her practice with one patient. Together, and with feedback from patients, a few changes were made to the innovation for improvement (for example, the "talking tips" were added to the user guides).

This project was designed as a pilot evaluation for the purpose of determining feasibility, and to incorporate feedback from PHC providers. The self-selected group of

PHC provider participants were given opportunities to role-play and "trial" each of the CBT methods they were taught during a training workshop. PHC providers were asked to use the CBT innovation in whatever manner best-suited their individual practices. They were advised of some of the barriers identified in the literature such as a perceived lack of time by providers to offer CBT, interruptions within the office, and the perception that some patients were not suitable for CBT. To address these barriers they were advised to consider incorporating CBT into their regular workday as it was set up to be deliverable in an appointment of 20 minutes. Also, to help overcome barriers, it was suggested they keep to the structure of the CBT innovation.

Since CBT is best suited to a patient with some degree of motivation to complete the independent "homework" each week, the perception that patients may not be suitable is a valid perceived barrier. This CBT innovation was designed with an introductory patient session where patients are instructed in what CBT is and is not, and then screened for their level of depression using a validated tool. The Patient Health Questionnaire (PHQ 9) is a non-copy written, psychometrically valid depression screening tool and it was suggested to PHC providers to be administered at the introductory session (Kroenke, Spitzer & Williams, 2001) (see Appendices I, J). This was "suggested" rather than incorporated as part of the actual CBT innovation since this is meant to reflect "real-life" clinical practice and not all PHC providers do formal screening with a tool. It was left up to the PHC providers to screen patients in whatever manner they are typically inclined to do in their individual practices. Screening patients' level of depression, and having an introductory information session for patients, can help PHC providers determine suitability for CBT (level of depression). It also gives patients the information they need

to make a choice to participate or not, based on knowing what is expected of them during the program, and their level of motivation. These strategies help to overcome barriers and also represent "trialability" on a small scale. The pre-implementation questionnaire did not assess trialability.

Observability. The final attribute for the characteristic of the innovation is its observability. This refers to its ability to be evaluated using organizational performance markers such as improved efficiency, satisfaction or health systems outcomes (Dobbins et al., 2005). This project was set up to evaluate PHC providers' satisfaction with this new CBT innovation, and its feasibility as a tool for implementing CBT. As well, PHC providers' confidence in their skills to deliver CBT, and ultimately utilization rates were evaluated. For the scope of this project, performance markers were designed only to look at the PHC providers' perspectives, and not patient outcomes.

Organizational Characteristics

The characteristics of an organization have a major influence over whether an innovation is adopted or not. In fact, it has been estimated to account for as much as 40% in the variability of innovation adoption for health care professionals (Dobbins et al., 2005). Dobbins et al (2005) state:

> Organizations that have a high functional differentiation, a culture that values the use of research evidence in practice, effective communications systems, decentralized decision making, managerial support for change, and adequate resources are more likely to adopt innovations. Innovations promoters can assess these characteristics within their organization to identify naturally occurring facilitators and barriers to evidence-based practice and can use that knowledge to

> optimize the impact of those characteristics that facilitate innovation and minimize those that pose barriers. (p. 180)

Organization. The Group Health Centre is the organization where this author is employed, and where eight of the ten PHC providers in the pilot evaluation also have their clinical practices. It is the largest alternatively- funded healthcare organization in Ontario, and has many programs and services (Group Health Centre, 2013). The Group Health Centre is a not-for-profit, multi-specialty organization that employs 10 PHC NPs. In partnership with an independent medical group of 65 physicians (35 are family physicians), the Group Health Centre provides healthcare to over 60,000 residents of Sault Ste. Marie and the Algoma district. According to the adoption framework this represents a high level of functional differentiation which is a facilitator for dissemination. There are electronic medical records and intranet webspace to promote the flow of information within the Group Health Centre, which according to the innovation adoption framework also has a positive association with innovation adoption (Dobbins et al., 2005). Group Health Centre's vision statement states they aim to "provide leadership and achieve excellence in healthcare and wellness promotion."

During the literature review, another barrier to CBT that was identified was PHC providers' perception that they had poor organizational support (Kramer & Burns, 2008). This concern is addressed in the framework under "organizational characteristics" (Dobbins et al., 2005). At Group Health Centre there was support given for all the interested PHC providers to attend the 4-hour training workshop, and they were excused from their usual duties of the day to attend (managerial/leadership support). In-kind funding was also approved by management and given for the photocopying and assembly

of the CBT materials required, including provider user-guides and patient handouts. Dobbins' adoption framework states adequate resources such as these are a facilitator for the dissemination of an innovation (Dobbins et al., 2005). Re-organization and restructuring at Group Health Centre within the past year has resulted in the closure of the research department and counseling services, which may reflect a potential barrier, as the closure may be perceived by Group Health Centre staff to mean that these are unvalued services. Discussion with Group Health Centre management, however, has demonstrated a positive attitude toward implementing the CBT innovation, as this may in fact help address the counseling needs of patients at Group Health Centre. Managerial support for change is another facilitator for innovation adoption according to the framework (Dobbins et al., 2005). Also, this author had previously worked in the Group Health Centre research department for 10 years and has an understanding and belief in the importance of using evidence in practice, which is a facilitator for adoption.

One barrier identified in the literature, the lack of financial incentive to do CBT in fee for service providers, is not a barrier at this organization as all PHC providers, including physicians, are salaried, and not fee-for-service (Aschim et al., 2011; Wiebe & Greiver, 2005). The pre-implementation questionnaire did address several other potential barriers that the participants thought might affect their ability to deliver CBT in their practice. These potential barriers included: not enough time to do CBT in their current appointment times (four of the nine participants), workload too heavy to learn/develop a new skill (one participant), too many disruptions in the office (one participant) and the wait/lead time for appointments in their office was not amenable for biweekly CBT sessions (two participants).

Environmental Characteristics

Environmental characteristics that influence the adoption of innovations in health services include having a good quality reporting relationship between senior administrators and the governing board, a location in an affluent urban center, healthy peer pressure and competition with other organizations, and a high perceived level of prestige assigned to the organization (Dobbins et al., 2005). Group Health Centre's senior administrators report directly to a Board of Directors. Group Health Centre is located in Sault Ste. Marie, Ontario which has a population base of 72,000. However, Sault Ste. Marie is somewhat geographically remote as the closest Canadian city is Sudbury, which is 300 km away. Group Health Centre provides care to over 60,000 of these people (Group Health Centre, 2013). Without another close-by similar organization to provide that healthy peer pressure or competition, this could be a potential barrier to the CBT innovation adoption, and will need to be monitored. Within the city of SSM, however, the Group Health Centre has always enjoyed a good reputation of prestige with a very proud sense of history. Group Health Centre was opened on Labour Day 1963 after local union groups came together with a new vision for a healthcare centre to serve the people of Sault Ste. Marie (Group Health Centre, 2013). Canvassers went door-to-door over 5 years and convinced 5000 local residents to give 135 dollars each, to be considered a "voluntary sponsor fee" as they would become the Group Health Centre original patients. With the $675,000 raised, the Group Health Centre was built and became the first union-sponsored community healthcare facility which offered universalized healthcare, before Medicare was even introduced in Canada. Consumer sponsorship remains an ongoing principle of the Group Health Centre today, and there is

a sense of pride among Sault Ste. Marie residents who are affectionately known as "first brickers"

Individual Characteristics

Individual characteristics are the final attributes in the Persuasion stage of the framework to be considered for innovation adoption. A systematic review done to examine individual determinants of research use, found numerous methodological flaws within the studies, and the only attribute to be a factor in determining research use was an individual's attitude toward research. (Dobbins et al., 2005; Estabrooks, Floyd, Scott-Findlay, O'Leary & Gushta, 2003). Estabrooks et al. assert the focus should not be on an individual's determinants, but rather on the attributes of the innovation and the organization. Consistent with the Diffusion of Innovations Theory, the goal is not to change or alter the individual, no matter what population segment they fall under (Innovators, Early Adapters, Early Majority, Late Majority, Laggard), but rather to re-invent or adapt the innovation to meet their needs (Robinson, 2009).

Individuals. The CBT innovation that this project is implementing is aimed toward PHC providers (PHC NPs, physicians and a social worker) that were generally considered to have a high level of autonomy in their decision-making and clinical practice, as well as developed critical appraisal skills. The participants in this pilot evaluation were a self- selected group of PHC providers who were interested in learning to implement CBT in their own practices. According to the Diffusion of Innovations Theory, these early participants would likely be considered "Early majority" as they rely on personal familiarity with an "Early adopter" colleague to learn about the innovation (Berwick, 2003; Robinson, 2009).

The readiness to adopt an innovation is influenced by the interplay of how the characteristics of the innovation, the organization, the environment and the individuals who use it score. A list of barriers and facilitators should be created for each of these characteristics, and the barriers should be addressed (Dobbins et al. 2005). This CBT innovation was developed to attempt to overcome the common barriers already identified in the literature for CBT use in PHC. Specific potential barriers for this organization are the recent closure of the counseling and research departments that were longstanding services offered at Group Health Centre. Also, as mentioned in Dobbins et al.'s adoption framework, a lack of healthy competition and peer pressure from other similar organizations nearby to spur on the uptake of this new evidence based innovation may also be a barrier.

Recruitment of Individuals (Potential Early Majority). As a means of recruitment, there were two mass email send outs to approximately 35 family physicians and the other nine nurse practitioners at Group Health Centre, as well as a presentation of this project at both physician and NP meetings. In the end, in addition to this author, six PHC NPs, two physicians and one social worker expressed an interest in piloting this CBT innovation. One of the physicians was not employed at the Group Health Centre but worked with young adults at an educational institution. The social worker was recruited by word of mouth from the author, and worked with adolescents at a local high school in addition to doing counseling at the Group Health Centre. The seven PHC NPs all worked in family practice at the Group Health Centre, as did one of the physicians.

At the Group Health Centre, 7 of the 10 PHC NPs expressed an interest in the adoption of CBT into their clinical practices. The fact that only 2 physicians out of

approximately 35 were interested is a factor that needs to be considered, but was not addressed in the scope of this pilot evaluation.

Finally, the assistance of a PHC NP colleague, who also had a strong interest in having a CBT format available to facilitate its use in PHC, was obtained. She also attended the four training workshops and was willing to act as a "CBT champion" within the Group Health Centre organization.

Decision Stage

According to Dobbins et al. (2005) the third stage of the framework is the "Decision" stage, which takes into consideration the key stakeholders who should be involved in the decision to adopt the innovation. Key stakeholders can be any individual or group that affects the decision to adopt the innovation. The decision-making process involves considering not only the research evidence, but also the interests, needs, and attitudes of the key stakeholders, the health care resources, and if applicable, the clinical expertise of the staff. The decision- makers may choose to adopt the innovation in whole, in part or in a modified way. They may also choose not to adopt it.

Key Stakeholders.

For this CBT innovation, the key stakeholders were the PHC providers, the administrators and the manager of the recently closed, but potentially restructuring counseling department. A meeting took place between the author and each of the administrators. They were keen for CBT to be available to patients with depression, and were supportive of this pilot evaluation from the onset. CBT, however, does not appeal to all health care providers. The research has clearly shown that a provider of CBT needs not only the skills, but the interest and inclination to offer this type of psychotherapy in

their practice (Kramer and Burns, 2008; Philip et al., 2006; Wiebe & Greiver, 2005). According to Dobbins et al.'s framework, for the PHC providers to adopt CBT, it must be relevant, and in accordance with their values, beliefs and needs.

Implementation Stage

Once the decision to adopt an innovation is made, then strategies that will promote behavioural change and implementation of the innovation must be considered. The adoption framework asserts that the research done to change provider behaviour shows three strategies were most effective 1) interactive workshops 2) academic detailing and 3) reminder systems (Dobbins et al., 2005). Implementation activities can start with strategies to translate the research evidence into smaller, useable key messages, followed by the efforts to change clinical practice. To exemplify this strategy the CBT innovation was designed to take the research findings around CBT, and translate them into a useable format to facilitate the implementation of CBT in PHC.

Strategies

Interactive workshops. An interactive workshop was conducted as the initial training session and all the PHC provider participants attended. The 4-hour workshop was interactive, and included role-playing for each of the new concepts taught, which is also consistent with the principles of adult learning that assert adults learn best by doing (Canadian Literacy and Learning network, n.d.). A follow up 1-hour lunchtime "CBT booster session" was offered two months after the initial training workshop and was attended by five of the nine participants. Of the four that did not attend, one was on vacation, one had a last minute work emergency, one decided against trying CBT at this

time due to other new work commitments, and one "was unable to attend." Food and beverages were provided at both the training workshop and the booster session.

Academic detailing. This strategy is also known as education outreach, and includes using the trained person to meet the PHC providers in their practice setting to provide information (Dobbins et al, 2005). Due to logistical barriers of needing time away from the author's own clinical practice, this was not done during the project. The interested PHC providers were advised that they could call this author, or the other PHC NP "CBT champion", at any time with questions about how to use the CBT innovation. However, not one participant called for assistance. Many questions from the PHC NPs were addressed, but this was done during regular monthly NP meetings that occurred for other purposes.

Reminders. Sending reminders to participants has been shown to be an effective, low-cost and feasible strategy (Dobbins et al, 2005). The PHC provider participants were reminded on a regular basis with emails and face to face encounters. Administrators were sent regular email updates on the status of the implementation stage. The adoption framework also acknowledges that using multiple interventions is likely to be more effective, and can be combined with any of the less effective strategies. These strategies include giving feedback to providers on their performance with the innovation (this was done during the training role playing), including providers in discussions about the problem, (lack of CBT use) and the appropriate approach to manage it, and having patients engaged and requesting the intervention. As this was set up as a small scale pilot evaluation, no attempt was made to engage patients to mediate for this CBT innovation.

Confirmation Stage

The final stage in the adoption framework is the Confirmation stage, which is where "Results" are reviewed. At this stage, evaluation takes place of both the process and the outcomes, to judge the success of the innovation adoption. During the confirmation stage, the question must be asked "did the change in practice occur and did it have the intended impact?" (Dobbins et al., 2005). The "observability" of the innovation takes on an important role in the Confirmation stage, as the performance indicators that were identified to be observed, now provide direct feedback about the adoption outcome. As previously listed, the criteria used to evaluate the PHC providers' attitudes, beliefs and knowledge of CBT and their experience with the CBT innovation tool included:

1) Provider satisfaction with their care of depressed patients

2) Provider attitudes about CBT and its suitability for their practice setting

3) Provider satisfaction with the CBT innovation tool

4) Provider satisfaction with the CBT training they received to implement it

5) Provider confidence level in their CBT skills

6) Utilization rates of the CBT innovation and

7) Barriers perceived to using CBT

The CBT innovation and its implementation were evaluated using these performance indicators with respect to both process and outcomes measures. A post-implementation questionnaire was used to capture the data (see Appendix C for results). With only nine participants providing evaluative data, however, even subtle change in values from

baseline will look magnified, and need to be interpreted cautiously, more as a trend then an absolute difference.

Results from PHC Provider Post-Implementation Questionnaire

Providers' satisfaction with their care of depressed patients. Provider satisfaction with their care of depressed patients was used as a performance marker for perceived relevancy of this innovation with their needs. These are the framework attributes of "relative advantage" and "compatibility" for the characteristics of the innovation. In this project, provider satisfaction levels with their care of depressed patients increased after the CBT innovation tool was introduced to them. At baseline, four of the nine participants were dissatisfied, three were neither satisfied nor dissatisfied, and two were satisfied. Post implementation, three remained neutral, however six participants were now satisfied with the care of their depressed patients, and nobody was dissatisfied. During informal discussions, however, several of the providers said if they had the option to refer their depressed patients to someone else who could provide this CBT innovation, that they would prefer this to providing it themselves.

Providers' attitudes about CBT. Providers' attitudes around CBT's efficacy and suitability for their practice setting were also measured to determine "Relative Advantage" or perceived benefit for adopting the change in practice. At baseline, seven of the nine providers believed CBT was an effective treatment for depression, and six thought that PHC providers were appropriate providers to do CBT. Post-implementation, however, all nine participants believed CBT to be effective, and all nine now believed PHC providers were appropriate clinicians to deliver it.

Providers' satisfaction with the CBT innovation tool. According to the adoption framework, provider satisfaction with the CBT innovation tool is evaluated by performance indicators related to measures of structure. Evaluation of structure takes into consideration whether the human and physical resources needed to implement the new practice were available (Dobbins et al, 2005). For the human resources, there were a sufficient number of participants for a pilot evaluation; however, their underlying CBT qualifications may not have been sufficient to be able to fully adopt the new CBT innovation. In terms of the physical resources required for the delivery of CBT, step-by-step provider user guides as well as good-quality patient handouts and worksheets were all assembled into a binder and given to each PHC provider. These resources were then reviewed with them during the training workshop.

Measuring participants' satisfaction with the CBT innovation tool reflects the attributes of "complexity" and whether it was simple enough for them to adopt (Dobbins et al, 2005). In the post-implementation questionnaire, participants reported a high level of satisfaction with the physical resources, with 100% of participants saying they either agreed or strongly agreed that the patient handouts and user-guides were helpful and sufficient. In terms of using a pre-packaged, structured-format, six of the nine participants reported they found it to be helpful and the remaining three were neutral. Evaluation of the eight-session format being comprehensive enough, and being deliverable within a typical office appointment, demonstrated most participants (7 out of nine and 6 out of nine respectively) neither agreed nor disagreed. The neutral findings, and their inability to rate this, may reflect that several participants weren't able to fully implement the CBT innovation tool in practice.

Providers' satisfaction with the CBT training. According to the framework, provider satisfaction with the training they received in CBT is evaluated by performance indicators that are related to process measures and also "trialability" of the innovation (Dobbins et al, 2005). Process evaluation looks at how the CBT innovation is implemented to promote practice change. This refers to the training process to prepare PHC providers on how to use and implement the CBT innovation. One of the goals of the APN project was to increase providers' confidence in their skills to be able to apply the new CBT innovation, as such, their satisfaction with the initial training and ongoing support were measured. Of the participants, four reported that the 4-hour training workshop was sufficient for them to get comfortable enough to start CBT, while three were neutral in their answer, and two didn't feel comfortable. Most participants agreed (seven out of nine) that ongoing support was necessary and seven also felt the ongoing support they received was sufficient for their learning needs. One participant wrote "I found the introductory workshop overwhelming. Lots of information at once. [The author] worked hard to give us the most information in a very concise way, but I found it difficult to keep it straight in my mind."

Providers' confidence level in their CBT skills. Consistent with the literature, in this project the participants also rated a lack of confidence in their skills as the main barrier they encountered, with seven of the nine reporting this. Interestingly, however, their overall confidence levels did increase from baseline. At baseline, six of the participants rated themselves in the low confidence range but this decreased to only two participants post-implementation. Similarly, at baseline three of the nine participants

rated themselves in the moderate confidence range, but post-implementation this also increased to seven participants.

Participants' ability to identify patients that were thought to be appropriate for CBT improved from baseline. When asked to comment on the following statement "I have the ability to identify appropriate patients for CBT," at baseline, two participants disagreed, one was neutral, four agreed and two strongly agreed. However, after the training and implementation stage, 100% of the participants agreed or strongly agreed that they had the ability to identify appropriate patients for CBT. This suggests that although it was still a barrier, their confidence in identifying appropriate patients and in doing CBT improved.

Although provider confidence increased, perceived proficiency levels in doing CBT showed little change post- implementation. Both pre and post implementation, seven of the nine participants rated their proficiency skills as poor to fair and two rated them as good.

Utilization rates of the CBT innovation. Actual utilization rates of the CBT innovation were another performance marker used to evaluate the success of adoption of this CBT innovation. Dobbins et al. (2005) say that innovation adoption is not a dichotomous "all or nothing" process, but rather to be viewed on a continuum which includes partial or modified adoption. This author used the tool with 15 patients. Among the nine participants, the enlisted PHC NP "CBT champion" completed 8 sessions with one person and two other PHC NPs started the program with two patients each, and are currently ongoing. Thus, after the three month implementation stage, one of the providers had fully adopted the innovation, two had partially adopted it, and most had

expressed an interest in a "modified" version. Of note, both this author and the other PHC NP "CBT champion" who fully implemented the CBT innovation, had considerable CBT training from attending the "medical CBT" workshops for Certification, and both have done extensive reading on CBT methodology.

Barriers perceived to using CBT. Finally, barriers were evaluated to determine consistency with the literature, to assess if barriers in the literature had been successfully addressed in the CBT innovation, and to gain knowledge about what particular barriers may be applicable to this population of participants. Consistent with the literature, post implementation the main barrier was a perceived lack of confidence by the PHC providers (seven of the nine) in their skills to do CBT. The second main barrier identified by providers was that six of them now thought their depressed patients were not motivated enough for CBT (this was only two at baseline). A final barrier noted by three of the participants was not having enough time in their current appointment times to do CBT. Of note, however, only one of the NPs thought this was the case for them

In conclusion, the Confirmation stage addressed both the process and outcome measures for this CBT innovation as they related to the performance indicators chosen for the objectives of this project. The scope of this project limited evaluations to the providers' perspective only, and acknowledges that markers of patient outcomes, access to care or costs associated with changes in practice, are all important considerations for future evaluations. The data obtained during the Confirmation stage provides the feedback and rationale for recommending an adapted or re-invented approach to the innovation development and different and/or additional strategies to improve dissemination.

DISCUSSION

The main objective of this project was to conduct a pilot evaluation to determine if the implementation of a structured format of brief CBT methods could overcome the barriers and facilitate the delivery of CBT in PHC for patients with depression. The relevance of this project to the role of the PHC NP was also a key consideration. The findings suggest there was a full, partial and modified adoption of the CBT innovation. Readiness for adoption of an innovation depends on how the characteristics of the innovation, the organization, the environment and the individuals score, as well as how the dissemination strategies score Consideration of the barriers and facilitators identified in this CBT adoption process provides further insight and rationale, for additional or different innovation development and/or dissemination strategies. The relevance of this project's findings to the PHC NP role as well as the limitations and recommendations, are also described.

Innovation

All PHC providers expressed a high relevance for CBT as an effective treatment for depression, and as appropriate for implementation of PHC. They rated CBT to have benefit and be compatible with their needs and values, which according to the innovation adoption framework used for this APN project, is a strong facilitator for the adoption of CBT. The comment from the participants that they would still refer patients to other CBT providers if this was available, suggest that although CBT is compatible with their needs, the innovation may have been too complex for them to use. The Diffusion of Innovation Theory is a change theory that emphasizes the importance of adapting the

innovation to meet the needs of the individuals, not trying to change the individuals (Robinson, 2009). As such, this becomes a key consideration for adoption strategies.

Among the participants, three of the nine implemented the CBT innovation as it was initially developed over eight sessions; however, the majority of providers gave feedback for wanting an easier, less comprehensive approach to offering CBT (modified adoption). After the initial training session and during the implementation stage, providers gave helpful feedback that they were pleased with the brief methods of CBT, and deemed them effective, but that learning the methods was too extensive and overwhelming. During the implementation stage, one participant said "I really find this helpful but can you dummy-it-down", while several others nodded in agreement. The Diffusion of Innovations Theory asserts that continuous improvement is the key to improving uptake, and the adoption process should be one that is dynamic (Robinson, 2009). Local adaptation of an innovation, which often involves simplification, is a nearly universal property of successful dissemination" (Berwick, 2003, p. 1971).

In keeping with these principles, the author "re-invented" the CBT innovation, and simplified the approach to CBT delivery. During the one hour CBT "booster session," the author introduced a much less comprehensive approach to offering CBT methods, which only utilized parts of the eight sessions. The new approach focused on only behaviour activation strategies (goal planning, activity scheduling, pleasant events/fun, exercise and reconnecting socially with others) and some cognitive re-structuring techniques (how to identify and challenge negative automatic thoughts). The common factors of depression such as self-criticism, perfectionistic thinking, rumination, learned helplessness, luck versus habits, the fallacy of fairness, assertiveness,

procrastination and problem-solving were not emphasized. This seemed to appeal to most of the PHC providers in attendance, and they expressed a desire to have more booster sessions to continue to learn and practice CBT with this easier approach. The author called this simplified approach "CBT Lite" for purposes of clarity and explanation with other providers and stake holders. Of note, of the four providers that did implement the eight-session CBT innovation, all expressed high levels of satisfaction with it. No formal evaluation was done for the simpler "CBT Lite" approach.

Providers' perception of their depressed patients not being motivated enough was a barrier identified in this pilot evaluation, which is also consistent with the literature (Wiebe & Greiver, 2005). Low motivation is a common characteristic of depression, and one of the biggest challenges of treatment, be it psychotherapy or medication adherence (Parikh et al., 2009; Wiebe & Greiver, 2005). It is possible that the introduction of CBT methods into a depressed person's plan of care, without them having to actually commit to an eight session program, may overcome this barrier. This again lends support to the simpler, less comprehensive approach of "CBT Lite," in that changing the innovation helps address some of the identified barriers to implementation. This change not only appealed to providers, but might also let patients experience the benefits of CBT without the perceived burden of commitment. This author's experience with two patients (one who admitted openly that she didn't feel motivated enough to commit to an eight- session program and the other who had in the past demonstrated poor motivation), showed just using behaviour activation strategies was very effective in getting them engaged in CBT. This again suggests the potential benefits of an approach like "CBT Lite" for patients who don't feel motivated enough to commit to a more comprehensive program.

Finally, this CBT innovation as experienced by this author, demonstrated significant patient efficacy with large decreases in their Beck depression scores from pre-implementation to post implementation. Patients also expressed a high level of satisfaction with CBT, and verbalized to the author that they felt they had more control now over their depression. One patient said CBT "changed her life." These observations, however, need to be interpreted with caution, as this pilot evaluation was never designed to measure, or address patient outcomes.

Organization

The other barriers from the literature, not enough time to learn new CBT skills; and lack of perceived organizational support, were not confirmed in this pilot evaluation (Aschim et al., 2011; Wiebe & Greiver, 2005). It may be that the barrier "not enough time to learn new CBT skills" was overcome by the CBT innovation. Providers in this pilot evaluation all agreed, or strongly agreed, that the step-by-step user guides and good quality patient handouts were sufficient, and helpful. Also, not one provider in this pilot evaluation indicated they perceived a lack of organizational support as a barrier to offering CBT in their practice, which actually worked as a facilitator for the uptake of CBT. Administrators at Group Health Centre have been very supportive of this CBT pilot evaluation, allowing providers to attend training sessions and providing in-kind support for physical resources. This buy-in from organizational management acted a definite facilitator for adoption.

The barrier previously identified in the literature of not having enough time in their appointments to offer CBT was also acknowledged by non-NP providers in this pilot evaluation, but interestingly, not by any of the NPs. In this pilot evaluation, all of

the NPs thought they had enough time in their current appointments to do CBT. Typically, PHC NPs have some flexibility in the type, and length of appointments they offer to patients. The Canadian Nurse Practitioner Initiative (2006c) found the average length of time Canadian PHC-NPs spend per patient visit is 30 minutes. This may be a facilitating variable for PHC NPs implementing CBT.

Environment

Traditional environmental characteristics had minimal influence in determining the adoption rate of this CBT innovation. During this project the Group Health Centre remained a stable organization and there were no major healthcare changes in the community. However, a different kind of environmental characteristic that may have had some influence on the adoption of CBT is the "physician culture." All physicians were invited to participate in the pilot evaluation but out of the 35 family physicians at the Group Health Centre only two expressed interest. Berwick (2003) says only a minority of physician groups routinely adopt formal scientific protocols or evidence based guidelines and he attributes some of this to "stubbornness." It is unknown if this is an influencing factor for this pilot evaluation. Perhaps the innovation or strategies for its dissemination can be adapted further to address this issue.

Individuals

Full adoption of the eight-session CBT innovation was only obtained by one participant (the CBT champion) and this author, whom both have more advanced CBT skills. These findings suggest that PHC providers with some developed CBT skills may be better-suited to offering a comprehensive approach to CBT, while others may prefer a more basic level of doing CBT than was provided with the original CBT innovation.

Consistent with the CBT literature, providers' lack of confidence in their skills to do CBT was a barrier identified in this evaluation project too (Aschim et al., 2011; Wiebe & Greiver, 2005). Confidence may reflect the innovation attributes of "trialability" and "compatibility." They may not have had enough practice or trial with the CBT innovation as they needed or the CBT innovation tool may not have been simple enough for them. Also, only two participants at baseline thought their patients were not motivated enough for CBT, but this increased to six participants post-implementation. This may reflect participants not having the confidence in their skills to identify which patients are appropriate for CBT. The lack of confidence in their CBT skills suggests that different strategies may be useful such as a new "re-invented" easier-to-use CBT innovation and/or different training strategies that match the needs of the providers. One PHC provider commented "for me it would be better to have more training sessions that were shorter, maybe four 1-hour sessions and do them 2 weeks apart…there was a lot of information to try to absorb in one afternoon." It is also possible that implementation of this CBT innovation, which was quite comprehensive for depression, required an underlying knowledge of some CBT methodology, which many of the participants in this pilot evaluation lacked. The PHC providers, who had prior CBT training, seemed to have more confidence in their skills and higher adoption rates. The CBT Lite version with fewer CBT methods to learn may have more appeal and applicability for those providers with fewer skills.

The purpose of this CBT innovation was not to teach comprehensive CBT methodology, but rather to offer a format for PHC providers to apply CBT with their depressed patients in a comprehensive structure. The findings suggest that:

1) there needs to be a basic level of comfort and knowledge of CBT methods to be able to fully implement the innovation as it was originally developed (comprehensive 8 session format of CBT) or,

2) consistent with the principles of the Diffusion of Innovations theory, the CBT innovation tool needs to be "re-invented" to meet the needs of some of the PHC providers

3) the training and implementation strategies need to be modified to increase confidence and proficiency

Relevance of Findings to PHC NP Practice

The relevance of the findings from this pilot project are significant to PHC NPs because the core competencies of an NP include the ability to assess, diagnose and treat/manage patients with illnesses such as depression, within a holistic model of care (CNA, 2010). The findings show PHC NPs to be a well-suited provider for offering CBT to their depressed patients in the PHC setting. As such, implementing CBT matches well with NP practice and expectations.

PHC NPs should be competent and committed to evidence-based practice, which includes the ability to use research findings in their practice (Stommel & Wills, 2004). For NPs, developing an evidence-based practice means integrating current research, such as CBT, into their daily decision-making, in the treatment and management of patients (Klardie, K., Johnson, J., McNaughton, M. & Meyers, W., 2004). "Evidence based decision-making is essential to optimize outcomes for patients, improve clinical practice, achieve cost-effective care and ensure accountability and transparency in decision-

making" (Canadian Nurses Association, November 2002). This project is an example of incorporating evidence based decision-making into daily practice.

The Canadian healthcare system faces public calls for increased and more equitable access to care, as well as increased demands for services including mental healthcare (DiCenso & Bryant-Lukosius, 2010). There is also a societal shift towards wellness care and support for self-management. This is congruent with the role of the PHC NP, as the main focus of the NP role is health promotion, preventative care and disease prevention and management of stable chronic illness. The findings of this project exemplify that the PHC NP can be ideal for addressing the increased demand and need for services like CBT.

The Canadian Nurses Association Core Competency Framework (2010) also says NPs have the knowledge to assess and positively respond to changes in population health trends, by designing services that promote healthy living. Responding to changes in population health trends encompasses recognizing when there is a gap in services that are needed, and taking the opportunity for developing new roles to fulfill this gap. PHC NPs can and should seek this opportunity to provide CBT to address this gap in a much-needed mental health service. This would reflect practice at an advanced nursing level.

The Diffusion of Innovations Theory asserts it is the conversations with peers that spread adoption. It is usually the people one knows and trusts, who have successfully adopted the innovation already that gives a sense of credible reassurance (Robinson, 2009). PHC NPs are well-positioned and qualified to be "Early adopters" or "Early majority" and thus act as leaders to ensure this evidence-based practice is implemented.

The Canadian Nurses Association states the NP "identifies and implements research-based innovations for improving client care at the individual, organizational and systems level" (CNA, 2010, p. 10). The Canadian Nurses Association has developed a core competency framework with principles and expectations that support and encompass the role for PHC NPs to offer treatments like CBT within their practices. At a provincial level, the Nurse Practitioner Association of Ontario promotes CBT on their continuing education website, with the CBT Certificate Program of "medical CBT". In partnership with CBT Canada, the Nurse Practitioner Association of Ontario suggests that with these new skills NPs will "quite likely enjoy their work even more" (NPAO, 2012b). This author experienced a tremendous sense of satisfaction and reward in offering this CBT treatment that empowered patients to take control and manage their depression. This author, however, had to independently seek out the learning required, and at her own expense, to offer CBT as it was not part of the advanced practice learning curriculum in the NP program.

Limitations

This project was set up as a pilot evaluation to gain some initial insight and feedback about the development and implementation of a new CBT innovation in terms of provider satisfaction and feasibility. By nature of it being a pilot evaluation, there were methodological limitations. This was a small, self-selected group of participants who were inclined to offer CBT. Although the data obtained was rich for preliminary insight, it was impossible to draw any conclusive causation. Due to the timelines of this project the participants were only followed for three months, which is a short period of time to attempt to adopt a new practice. With ongoing training and a longer evaluation

period, a better assessment could be made. Also, the implementation stage started at the onset of the Christmas holidays, which likely contributed to a lag in uptake initially.

Evaluation was measured with questionnaires prior to the initial training session and then again 3 months later. As stated earlier, this was done to obtain a baseline assessment of the PHC providers' attitudes, values and knowledge of CBT, and then to allow them to settle in and trial their new skills. A longer duration of CBT implementation would allow for multiple data collection points and perhaps a richer evaluation, especially with the late introduction of the "CBT Lite" approach of which no evaluation was done. The information obtained from a longer trial of this potentially easier, preferred approach, would be very valuable.

Finally, the PHC participants were also colleagues of this author, and although we discussed the importance of honest feedback to be able to develop the CBT tool to be feasible and useable according to their needs, it is always possible that they were not totally comfortable disclosing their true thoughts to a colleague.

This pilot evaluation however, did provide some useful insight to make recommendations to overcome some of these limitations.

RECOMMENDATIONS

Recommendations can be made for education, research, organizational management and leadership while continuing to follow the principles of the Diffusion of Innovations Theory and Dobbins et al.'s framework for the development and adoption of an innovation into practice.

Education

CBT is the most researched psychotherapy with clear evidence for benefit, yet it is not currently being taught in the curriculum of either medical or NP programs. It is a recommendation of this paper that CBT should be incorporated into the NP curriculum, ideally in the Therapeutics module for mental health. This would provide future NPs with the necessary training to offer this in-demand, evidence based treatment while removing the barrier of additional out-of-pocket expenses.

Research

The development of this CBT innovation required a "re-invention" part way through the implementation phase, based on feedback from the participants. For those providers who did implement the eight-session CBT innovation, there was positive feedback. However, although this CBT innovation was designed to facilitate the delivery of CBT to depressed patients in a structured, easy to use manner, it became obvious early on that this was still too complex for most of the PHC providers. A less- comprehensive, simplified approach was preferred. This represented the reality of the PHC providers' abilities with little, or no previous experience with CBT, and is an important barrier to acknowledge. Providing tailored training to PHC providers on basic CBT methods similar to the "CBT Lite" adaptation is recommended. Further evaluation on the

implementation of an easier approach, like "CBT Lite," is recommended as this may appeal to a higher number of PHC providers, and may increase the utilization rates of CBT, which ultimately is the most important objective. This approach may also appeal to less motivated patients, and to PHC providers who are less inclined to practice CBT in general. Further research and evaluation could also be done that incorporates patient outcomes for both efficacy and satisfaction.

Organizational

It may be desirable for the majority of PHC providers to offer simplified, basic CBT methods in their practice, but have the option to refer motivated patients to a few CBT champions within the organization, who could offer the comprehensive CBT program. The eight-session format of the CBT innovation can be reserved for PHC providers who are more inclined to do CBT, and have more skills and knowledge about CBT methodology. Gaining this knowledge and experience, and ultimately an increased confidence in their skills, may eventually develop for more PHC providers after continued practice with the "CBT Lite" approach. This pilot evaluation focused mainly on PHC NPs, but this could be expanded to other interested healthcare providers such as social workers, counselors and nurses working in chronic disease management programs.

A shift in the implementation strategies is also recommended to incorporate different training schedules for teaching CBT. It was suggested by one participant that doing four 1-hour sessions, every 2 weeks, would be more appealing than a 4-hour workshop which was deemed "overwhelming" by several of the participants. This preference in training schedules needs to be explored and accommodated, especially if the less-comprehensive CBT Lite approach was offered. Reserving the longer training

workshops for only providers inclined to offer the more comprehensive structured format would be preferred.

The strategy of academic outreach (visiting providers in their practice setting) was listed by Dobbins et al. (2005) as an effective strategy for dissemination, however, this was not trialed during this pilot evaluation, and could be explored as a potential new strategy for implementation. Regular booster sessions every 4 to 6 months are also recommended as a strategy and serve as reminders.

Finally, within the organization it may be helpful to address the "physician culture" to get physician buy-in for implementing CBT within their PHC practices at whatever level they prefer. Even being aware of basic CBT methods and strategies, allows for continuity of patient's mental healthcare, if patients were to receive CBT from another PHC provider within the organization. If CBT is presented to the physicians by another physician they may be more inclined to try it. This issue can be addressed through discussion with senior physician administrators and perhaps identification of, and partnering with, a physician "CBT champion."

Management and Leadership

Final recommendations pertain to organization management and leadership. In this pilot evaluation, the Group Health Centre was supportive, and buy-in was demonstrated, which overcame some of the barriers identified in the literature. Ongoing support from both of the medical and nursing administrators will be crucial if adoption is to be more widespread. Newton and Yardley (2007) found the successful uptake of CBT could easily be achieved but required:

> the identification of specific individuals who will diligently advocate for change, indentify and address barriers, promote a commitment from service administrators, ensure appropriate training, and assist with incorporating the change into routine practice within the context of broader strategic service planning (p. 1497).

In other words, a CBT champion(s) is required in addition to organizational buy-in and support. Engaging NPs in this leadership role is highly recommended to embrace this opportunity to develop new skills to improve patient care. Adopting CBT as a Best Practice within the organization is a further recommendation, to ensure its support. PHC NPs, can act as pioneers and become more involved in meeting this gap in mental health services, by offering CBT, which is an effective, first line and patient-preferred treatment.

CONCLUSION

Although CBT is recommended as a first-line treatment for patients with depression, its utilization in PHC still has many challenges. Development of a structured format of brief CBT methods, in an attempt to overcome some of the barriers, and facilitate its use in PHC, had some success with partial adoption of the innovation tool. More importantly, however, it offered valuable insight into what PHC providers want and need to be able to utilize CBT in their clinical practices. The PHC participants were clear that they valued CBT and found it helpful for depressed patients, but they needed an even simpler approach then what was originally offered. The "re-invention" of the structured format of the CBT tool/innovation needs to be further explored.

During this pilot evaluation, through word of mouth within the GHC organization, the interest in this CBT innovation grew. This author has received requests from 3 additional NPs, 1 physician and 2 social workers to be trained in CBT. The interest in learning and utilizing brief CBT methods for patients suffering with anxiety has also been requested, and this author is currently developing a new CBT innovation tool for anxiety. Information gained during this pilot evaluation is valuable for the process of developing this new anxiety tool.

The quest to support and improve the uptake of evidence-based findings into clinical practice is an ongoing venture. As advanced practice nurses, PHC NPs are in the most unique and opportune position to embrace this challenge. PHC NPs can act as CBT champions and agents of change, for patients requiring this much needed mental health treatment.

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Appendix: A: Framework for Adopting an Evidence-Based Innovation

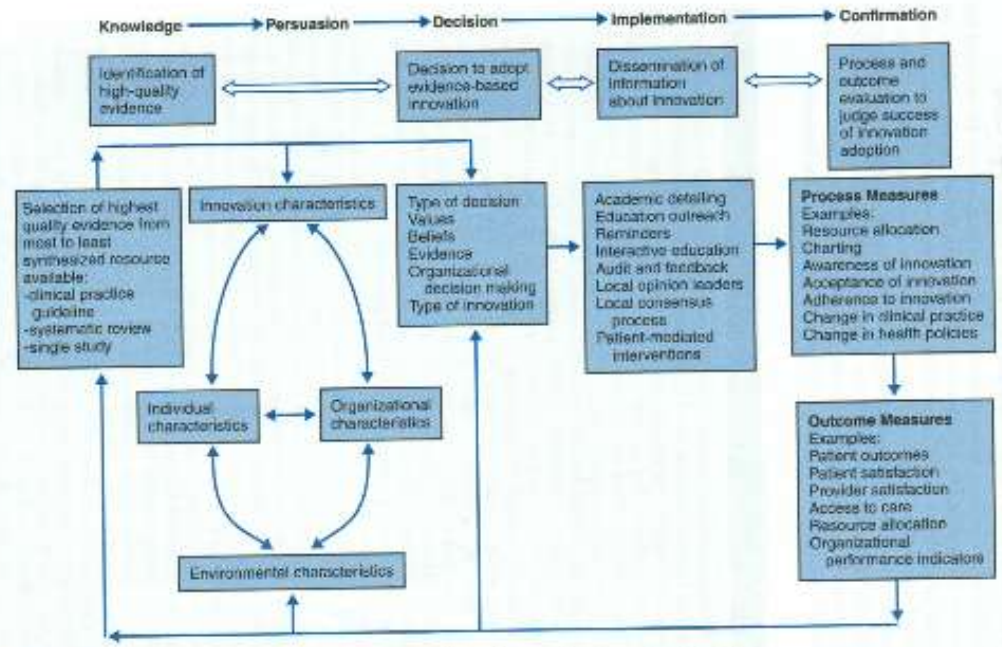

Figure 11–1. Framework for adopting an evidence-based innovation in an organization.

Appendix B: Pre-Implementation Questionnaire Composite Results

Are you an NP? 9 PHYSICIAN? 2 SW? 1

Please rate the following statements:
1-Strongly Disagree 2-Disagree 3-Neither disagree or agree 4-Agree 5-Strongly Agree

	1	2	3	4	5
CBT is an effective treatment for depression			2	5	2
CBT is appropriate for primary care providers to do			2	3	3 1-n/a
My office/work setting is appropriate for me to deliver CBT to my patients		1	2	2	4
I have the ability to identify appropriate patients for CBT		2	1	4	2

Please rate your proficiency level in doing CBT

Proficiency Level	Poor	Fair	Good	Excellent
My proficiency level in doing CBT	3	4	2	

How satisfied are you with your current care of your depressed patients?

Very Dissatisfied	Dissatisfied	Neither satisfied or dissatisfied	Satisfied	Very Satisfied
	4	3	2	

Please rate your level of confidence in your current skills to offer CBT to patients

0% 25% 50% 75% 100%
I _____I _____I _____I _____I
No confidence moderate confidence complete confidence
Answers:
1 2 3 1 2

Please select the barriers you perceive to delivering CBT in your practice (select all that apply)

4	Not enough time to do CBT with my current appointment times
1	My workload is too heavy for me to learn and develop a new skill
1	Too many disruptions/interruptions in the office
6	Lack of confidence in my skills to do CBT
2	The wait (lead) time for appointments with me is too long to allow for weekly or every 2nd week sessions
2	My depressed patients are not motivated enough for CBT
0	Lack of support from my organization for me to offer CBT to my patients
0	I am not that interested in doing any type of psychotherapy/counseling of patients in general
0	I am not that interested in doing any type of psychotherapy/counseling of depressed patients

Do you perceive any other barriers to offering CBT in your office? A: “other types of crises” “patient no shows”

Have you taken any previous CBT training Yes =3 No= 6

Are you practicing CBT in any capacity currently in your practice Yes= 4 No=5

Appendix C: Post-implementation Provider Questionnaire- Composite Results

Are you an NP? 9 or PHYSICIAN? 2 SW? 1

Please rate the following statements:
1-Strongly Disagree 2-Disagree 3-Neither disagree or agree 4-Agree 5-Strongly Agree

	1	2	3	4	5
CBT is an effective treatment for depression				2	7
CBT is appropriate for primary care providers to do				6	3
My office/work setting is appropriate for me to deliver CBT to my patients		3		1	5
I have the ability to identify appropriate patients for CBT				6	3

Please rate your proficiency level in doing CBT

Proficiency Level	Poor	Fair	Good	Excellent
My proficiency level in doing CBT	2	5	2	

How satisfied are you with your current care of your depressed patients?

Very Dissatisfied	Dissatisfied	Neither satisfied or dissatisfied	Satisfied	Very Satisfied
		3	6	

Please rate your level of confidence in your current skills to offer CBT to patients

0% 25% 50% 75% 100%
I _____I _____I _____I _____I
No confidence moderate confidence complete confidence
Answers: *2* *4* *3*

Please select the barriers you encountered delivering CBT in your practice (select all that apply)

3	Not enough time to do CBT with my current appointment times
2	My workload is too heavy for me to learn and develop a new skill
1	Too many disruptions/interruptions in the office
7	Lack of confidence in my skills to do CBT
1	The wait (lead) time for appointments with me is too long to allow for weekly or every 2nd week sessions
6	My depressed patients were not motivated enough for CBT
0	Lack of support from my organization for me to offer CBT to my patients
1	I am not that interested in doing any type of psychotherapy/counseling of patients in general
0	I am not that interested in doing any type of psychotherapy/counseling of depressed patients

Did you encounter any other barriers offering CBT in your office? “crises in office” “semester too short” “sometimes hard to find timeslots” “I’m learning a new skill in a different area”

How satisfied were you with the level of training you received for this CBT pilot project?

Very Dissatisfied	Dissatisfied	Neither satisfied or dissatisfied	Satisfied	Very Satisfied
		2	4	3

Please rate the following statements:
1-Strongly Disagree 2-Disagree 3-Neither disagree or agree 4-Agree 5-Strongly Agree

	1	2	3	4	5
I found the quality of the patient handouts to be sufficient				4	5
I found the CBT Providers Guide for each session to be helpful			1	5	3
I found the pre-packaged structured format of the CBT sessions to be helpful in delivering CBT			3	3	3
I found 8 sessions was sufficient to be comprehensive enough to address all the important components of depression			7		1 1-n/a
I found I could manage to complete CBT sessions in my typical office appointment times			6	3	
I found the pre-implementation training sufficient to allow me to comfortably get started doing CBT with my patients		2	3	3	1
I found having ongoing support during the program **necessary** for my learning needs and questions re CBT			2	4	3
I found the ongoing support provided was **sufficient** for my learning needs and questions re CBT		1	1	4	3
Overall I was pleased with the CBT program developed				4	5

Please comment on any aspect of this CBT program that you feel would help us to improve it for further use:

"more training session that were shorter ie) 4 x 1-hr every 2wks"

"weekly sessions for patients was too much"

"I think a fair percent of PHYSICIANs know the benefits of CBT and would refer patients but not too many want to add this to their own practice"

"My impression is that only about 50% or so of patients are motivated to do this and more just want to take a med"

"training workshop overwhelming with lots of information at once-difficult to keep straight in my mind"

"would like shorter sessions over more days-lots of info to take in"

Appendix D: Consent Form

Consent

The Implementation of a Structured Format of Brief CBT Methods to Facilitate the Delivery of CBT by Primary Care Providers for Patients with Depression: A Pilot Evaluation

Purpose of the Evaluation

Depression affects about 10-12% of the population and many clinicians estimate that over a third of their appointments are for psychosocial reasons. Cognitive Behaviour Therapy (CBT) is well documented in the literature to be effective for treating depression- it is considered to be on par with medications, if not better. Although CBT is a recommended first line treatment, it is still not commonly offered by primary care providers. Knowing how to get started with CBT or what techniques to use and when can seem overwhelming for practitioners. Offering a "user-friendly" structured 8 session "program" which addresses all the salient points of depression with CBT methods that are practical enough for shorter medical appointments may facilitate the utilization of CBT. The purpose of this pilot evaluation is to offer a structured, 8-session format of CBT methods that are appropriate for the primary care office setting and examine the feasibility of this program.

Benefits of Participating in the Pilot Evaluation

Training will be provided to all participants on both CBT methods and the use of the newly developed program. This provides an opportunity for providers who were interested in offering CBT to their patients to learn and practice these skills. A four our training session will be provided as well as ongoing supervision. This allows development of CBT skills that may not have otherwise been available for providers.

Tasks to be performed

Participants will be asked to complete an anonymous questionnaire at the beginning of the pilot project to assess their attitudes and beliefs about using CBT. Another questionnaire will need to be completed at the end of the pilot about their attitudes, beliefs and their perceptions about the feasibility of the CBT program. Information will also be collected about their experience with the program informally through interview and discussion during the program implementation and at the end of the study.

Inconveniences and Risks

There is no risk associated with piloting the CBT program. Participants may experience some inconvenience to their usual patient interaction as they are implementing their new CBT skills with patients. The questionnaires should not take any longer than 15minutes to complete.

Right to Withdraw

Any participant in the CBT pilot evaluation has the right to withdraw whenever they chose. This is an evaluation of the feasibility of a newly developed format to offer CBT to primary care patients with depression. It is possible that this may not prove to be helpful for some providers and they may chose not to use this program with their patients.

Right to Confidentiality

No names or personal identifiers will be put on the questionnaires to encourage providers to give their honest input which will remain anonymous. Providers will be asked to identify if they are a nurse practitioner or a family doctor although this is optional. This is being done to assess if there is a difference in experiences with the program between different types of providers.

Data from this Pilot Evaluation will be kept for a period of 2 years and will be locked in a safe storage cabinet in Karen Barban's Group Health Centre office. At the end of 2 years it will be destroyed by Karen Barban by shredding it using a micro-cut, cross-cut shredder. Any publications that may arise from this Evaluation will not include any personal or identifying information in them.

Who to Contact if you have a Complaint or Concern

If you have any concerns or complaints about the content or conduct of this pilot evaluation you can contact the following:

Primary Researcher Karen Barban, NP (705) 541-2327 or **barban_k@ghc.on.ca**

Elaine Blakeborough, Senior Manager, Clinical Programs at Group Health Centre (705) 541-2207. Elaine Blakeborough is not attached to the research team.

Roberta Heale, RNEC, DNP, Assistant Professor, School of Nursing, Laurentian University (705) 675 – 1151 ext 3971 or **rheale@laurentian.ca**

Research Ethics Officer, Laurentian University Research Office, 705-675-1151 ext 2436 or toll free at 1-800-461-4030 or email **ethics@laurentian.ca**

I have read the above information. I have had all my questions answered to my satisfaction and I agree to participate.

_____ _____

Name Date

Appendix E: Research Ethics Board Approval Letter

APPROVAL FOR CONDUCTING RESEARCH INVOLVING HUMAN SUBJECTS

Research Ethics Board – Laurentian University

This letter confirms that the research project identified below has successfully passed the ethics review by the Laurentian University Research Ethics Board (REB). Your ethics approval date, other milestone dates, and any special conditions for your project are indicated below.

TYPE OF APPROVAL / New X / Modifications to project / Time extension

Name of Principal Investigator and school/department	Karen Barban (Nursing)
Title of Project	***The Implementation of a Structured Format of Brief CBT Methods to Facilitate the Delivery of CBT by Primary Care Providers for Patients with Depression: A Pilot Evaluation***
REB file number	2012-10-20
Date of original approval of project	November 22, 2012
Date of approval of project modifications or extension *(if applicable)*	
Final/Interim report due on	November 22, 2013
Conditions placed on project	Final report due on November 22, 2013

During the course of your research, no deviations from, or changes to, the protocol, recruitment or consent forms may be initiated without prior written approval from the REB. If you wish to modify your research project, please refer to the Research Ethics website to complete the appropriate REB form.

All projects must submit a report to REB at least once per year. If involvement with human participants continues for longer than one year (e.g. you have not completed the objectives of the study and have not yet terminated contact with the participants, except for feedback of final results to participants), you must request an extension using the appropriate REB form.

In all cases, please ensure that your research complies with Tri-Council Policy Statement (TCPS). Also please quote your REB file number on all future correspondence with the REB office.

Congratulations and best of luck in conducting your research.

Susan James, Acting chair
Laurentian University Research Ethics Board

Appendix F: Sample of Provider User-Guide

CBT Depression Session One-Provider's Guide

Tell pt the format for each session is always the same: to review homework from last week, do new learning activities then assign new homework for the upcoming week

1. **Review Homework** . Handout "My Life"- review the connection between all the areas
    - Look at their goals for CBT. This becomes a starting point for therapy and we will use these goals later in the session.
2. **Exercises** - Goals; Efforts and Reward Chart; Scheduling
3. **Homework**- Read Increasing Activity; Weekly Activity Schedule
4. **Feedback**
5. **Document** in EMR - use standardized phrase "cbt1"

EXERCISE 1: TURNING PROBLEMS INTO GOALS

Talking Tip:
"Setting goals is the single most important aspect of CBT. Complaining leads nowhere and complaints need to be re-directed into goals. In every complaint there is a hidden goal. The goal is usually the opposite/antonym to the complaint. eg) if someone complains of feeling depressed-the goal might be happiness /contentment/joy. The bottom line is "We are responsible for creating our own moods and this is done by having goals for what we want to see happen and then following through on the behaviours that are needed to achieve that goal."

If a pt can't state the goal then suggest it for them. Pts may need to be interrupted in their habitual complaining and re-directed to state a goal. (You can read "Goalification" and "Scalification" by Dr. Greg Dubord)

Trying to interrupt a complaint stream can be like trying to stop a waterfall. Reframe their energy into a goal. You can say "Wow you sound like you have a lot of energy around this and you are motivated to do something about it" or "I can hear the passion in your voice about this…"
Goals should be 1) broad (efforts should be specific but goals should be kept broad) 2) positive 3) realistic 4) few- keep it to 1-2 goals as they won't be able to follow through on more than this.

- Use the template "*Therapy Goals*" and looking at their goals from last week's homework. Choose 1 or 2 goals at the most and ask them to rank on a scale of 1-10 where they are at now with obtaining their goal. Ask what they are doing that is keeping them from being at a lower number (and congratulate them on

this effort) and ask what they have to do to move higher on the scale (this becomes the "effort" for the Efforts and Rewards chart.

EXERCISE 2: EFFORTS AND REWARDS

Talking Tip:
"Simply desiring an outcome is no guarantee it will happen unless we put in the "effort". Just like the saying goes "You reap what you sow" or in other words "You get what you give". If we want a new mood we have to behave differently. We are not automatically entitled to happiness- we have to earn our moods by doing the behaviours that encourage a good mood!" In life there are NATURAL CONSEQUENCES-it's not about rewards or punishments but rather just the natural consequences of our actions or inactions-things we should be doing but we aren't. Depression and anxiety are the natural consequences of not doing the behaviours to earn a better mood and only you have the control over that. You are the steward of your own mood!"

- Fill in an "Efforts and Rewards Chart" with what they need to do to move closer to achieving their goal (follow the directions on the template). Possible examples of efforts could be: exercise (be specific with times and amounts), connecting socially with someone (be specific), fun/enjoyable activities, doing the CBT home activities. Put their Efforts and rewards chart at the front of their binder and tell patient you will be looking at it and updating it each week.

EXERCISE 3: SCHEDULING

Talking Tip:
"OK, now we know that anxiety and depression are the natural consequences of repeatedly wasting time! Regular goal-directed behaviour is required for happiness- we can't just "get through" the day. We need to plan activities and follow through. If you were to build a house you wouldn't just pick up a brick and say "let's get started", no you would need an architect, some house plans etc. In our jobs we often have a plan for the day or we wouldn't get the tasks done that we are being paid to do. Life is the same way- we need a weekly plan or schedule to make sure we fit in what we need to be doing such as the behaviours we need to do to earn a better mood. It's important to know you won't necessarily feel like doing these behaviours initially- but that's ok- you still need to do them just like the other responsibilities we have in life that we have to follow through on. "Fake it til you make it"

- Using the "Weekly Activity Schedule" handout teach pt. to do strategic planning of their day- plan especially for times when they know their mood might dip such as evenings or weekends etc. Take a pencil and actually pencil in a few of the

efforts they need to do for their Effort/reward chart and maybe a fun activity. Monitoring behaviour changes makes a big difference so have pt bring in their activity logs each week for review.

"People are less likely to do what you expect and more likely to do what you inspect!"

HOMEWORK:

1. Effort and Rewards Chart **-** complete it together and review it at the start of each session. This will be an ongoing exercise each week!
2. Read handout "Increasing Activity"
3. Weekly Activity Schedule

Feedback: What did they like about today, what would like to change for next session

List of Client Handouts for this Session

Therapy Goals
Effort and Reward Chart
Increasing Activity
Weekly Activity Schedule

Appendix G: Sample Patient Handout- Therapy Goals

Therapy Goals

Name:	Number/DoB:	Date:

Goal 1:

What steps can I make towards achieving this goal?

On a scale of 0 – 10 with 0 being totally not achieved and 10 being totally achieved, how far along the scale am I now, with regard to this goal?

0 1 2 3 4 5 6 7 8 9 10

Not at all achieved — Moderately achieved — Totally achieved

Goal 2:

What steps can I make towards achieving this goal?

On a scale of 0 – 10 with 0 being totally not achieved and 10 being totally achieved, how far along the scale am I now, with regard to this goal?

0 1 2 3 4 5 6 7 8 9 10

Not at all achieved — Moderately achieved — Totally achieved

Goal 3:

What steps can I make towards achieving this goal?

On a scale of 0 – 10 with 0 being totally not achieved and 10 being totally achieved, how far along the scale am I now, with regard to this goal?

0 1 2 3 4 5 6 7 8 9 10

Not at all achieved — Moderately achieved — Totally achieved

Appendix H: Efforts and Rewards Chart

Efforts and Rewards Chart

Simply desiring an outcome is no guarantee it will happen unless we put in the "effort". If you want a new mood you have to behave differently. People often assume we are automatically entitled to happiness but this is not true- we have to earn our moods!

1. The reward is the mood you want to have. Fill this section in first ie) happiness (for depression) or a sense of belonging (for loneliness) or calmness (for anxiety). Each day rank your reward (mood) on a scale of 1-10.
2. Fill in the Efforts section- what do you need to do to move further along the scale of achieving your goal

Efforts	Date	Date	Date	Date	Date	Date	Date
Reward	Scale 1-10	Scale 1-10	Scale 1-10	Scale 1-10	Scale 1-10	Scale 1-10	Scale 1-10

Appendix I: Patient Health Questionnaire (PHQ-9)

PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

NAME:_____ DATE:_____

Over the last 2 weeks, how often have you been bothered by any of the following problems?
(use "✓" to indicate your answer)

	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself — or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite — being so figety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself	0	1	2	3
	add columns	+	+	

(Healthcare professional: For interpretation of TOTAL, please refer to accompanying scoring card). TOTAL:

10. If you checked off *any problems*, how *difficult* have these problems made it for you to do your work, take care of things at home, or get along with other people?

- Not difficult at all _____
- Somewhat difficult _____
- Very difficult _____
- Extremely difficult _____

Appendix J: Patient Health Questionnaire (PHQ-9) Scoring

PHQ-9 Patient Depression Questionnaire

For initial diagnosis:

1. Patient completes PHQ-9 Quick Depression Assessment.
2. If there are at least 4 ✓s in the shaded section (including Questions #1 and #2), consider a depressive disorder. Add score to determine severity.

Consider Major Depressive Disorder

- if there are at least 5 ✓s in the shaded section (one of which corresponds to Question #1 or #2)

Consider Other Depressive Disorder

- if there are 2-4 ✓s in the shaded section (one of which corresponds to Question #1 or #2)

Note: Since the questionnaire relies on patient self-report, all responses should be verified by the clinician, and a definitive diagnosis is made on clinical grounds taking into account how well the patient understood the questionnaire, as well as other relevant information from the patient.
Diagnoses of Major Depressive Disorder or Other Depressive Disorder also require impairment of social, occupational, or other important areas of functioning (Question #10) and ruling out normal bereavement, a history of a Manic Episode (Bipolar Disorder), and a physical disorder, medication, or other drug as the biological cause of the depressive symptoms.

To monitor severity over time for newly diagnosed patients or patients in current treatment for depression:

1. Patients may complete questionnaires at baseline and at regular intervals (eg, every 2 weeks) at home and bring them in at their next appointment for scoring or they may complete the questionnaire during each scheduled appointment.
2. Add up ✓s by column. For every ✓: Several days = 1 More than half the days = 2 Nearly every day = 3
3. Add together column scores to get a TOTAL score.
4. Refer to the accompanying **PHQ-9 Scoring Box** to interpret the TOTAL score.
5. Results may be included in patient files to assist you in setting up a treatment goal, determining degree of response, as well as guiding treatment intervention.

Scoring: add up all checked boxes on PHQ-9

For every ✓ Not at all = 0; Several days = 1;
More than half the days = 2; Nearly every day = 3

Interpretation of Total Score

Total Score	Depression Severity
1-4	Minimal depression
5-9	Mild depression
10-14	Moderate depression
15-19	Moderately severe depression
20-27	Severe depression

Appendix K: CBT Depression Program Title Page

Depression Sessions

In order to provide patients with effective cognitive behavioural coping skills, providers need to be sure to cover all eight sessions in order, and to do so by following the format laid out for each session. The format is similar for all sessions except the Introduction.

Introduction: Beck Depression Score and Burns Anxiety Inventory
Introduction to CBT-What It Is
CBT Model
Vicious Cycle of Depression

Session 1: Making Goals and Scaling Them
Efforts and Rewards Charts
Scheduling

Session 2: Identifying Moods
Automatic Thoughts
Brain Care

Session 3: Unhelpful thinking Styles
Introducing Thought Records
Accepting Uncertainty

Session 4: Challenging Negative Thoughts
Self Criticism- Self talk
Perfectionism and Being "Good Enough"

Session 5: Common Factors in Depression-Rumination, Oversimplifying, Learned Helplessness
Luck versus Habit, Fairness Fallacy-Gratitude
Fun and Pleasure Predicting Experiments

Session 6: Relationship Building- Social Equity
Communication Skills
Assertiveness

Session 7: Problem-solving
Procrastination/ Avoidance

Session 8: Termination- Planning Ahead (Relapse Prevention)