**TREATING ANXIETY AND DEPRESSIVE DISORDERS ONLINE:
UNDERSTANDING THE CURRENT STATUS**

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ABSTRACT

The field of counselling has started to incorporate advanced communication technology as a way to increase therapy access to clients. There is a mounting body of research regarding the use of these technologies to deliver viable online treatment for many mental health disorders. This project aims to clarify the current status of treating anxiety and depressive disorders online. The project is an extensive review of the literature related to the online treatment of anxiety and depression, including theoretical approaches to treatment, a review of the research on the effectiveness of existing online therapeutic programs, and a discussion of key ethical considerations. The goal of the project is to provide research-based recommendations for therapists interested in incorporating advanced communication technology into their current practice.

ACKNOWLEDGMENTS

This thesis marks the end of another chapter in my educational journey. Over the past several years, I have learned more about myself and the world around me. My eyes have been opened and my awareness evoked to look beyond my comfort zone and truly live to my potential. This journey and awakening would not have been possible without the love, belief, patience, and encouragement that I have received from my family, friends, and colleagues. I would especially like to thank my project supervisor, Dr. Faye Wiesenberg, for her insights, patience, and wisdom.

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CHAPTER 1: INTRODUCTION

The use of the internet for widespread public information can be traced back to

the mid 1950s when Russia launched the first satellite into space (Strickland, 2008). This

event caused an immediate response by the American military to create an advanced

warning system that essentially linked one place to another via computer. The need to

communicate using an advanced communication technology network led to the creation

of the worldwide web (WWW) in the early 1990s (Strickland, 2008). In 2005, Statistics

Canada released the findings from the Canadian Internet Use Survey (CIUS) that

suggested that an estimated 16.8 million adult Canadians (i.e., 18 years of age and over)

were connected to the WWW. Today, an estimated 68% of Canadians use the internet for

non-business related reasons (Strickland, 2008). Globally, this translates into millions of

people having access to the internet and virtually instant access to a great many topics

including commonly searched health topics such as mood disorders, anxiety, and

depression (Taylor, as cited in Proudfoot, 2004).

This chapter introduces the project as an examination of the current status of the

treatment of anxiety and depressive disorders online. It includes a statement of the

problem, the purpose of the project, delimitations of the project, definition of the key

practices and communication methods in online therapy, and an overview of the

supporting literature reviewed for the practice of online therapy for anxiety and

depressive disorders.

Statement of the Problem

According to the Canadian Mental Health Association (CMHA, 2006), anxiety and

depressive disorders affect approximately 1 in 10 adult Canadians. It has been suggested

that due to the prevalence of these disorders, the demand for therapy far outweighs the availability of therapists trained to assist those affected by these disorders in traditional face to face (FtF) contexts (Proudfoot, 2004). To further compound this problem, it is common for people affected by anxiety and depressive disorders to not seek treatment due to negative societal views and stigmas attached to these disorders (Berger, Wagner, & Baker, 2005; CMHA, 2006; Campbell, Cumming, & Hughes, 2006). Thus, this situation implies that an invisible demand for treatment of anxiety and depression may exist in addition to this documented one.

<div style="text-align:center">Project Purpose</div>

As advanced communication technologies gain popularity, more research is being conducted into the possibility of computers being able to assist therapists in conducting therapy. The purpose of this project is to answer the research question: What is the current status of treating anxiety and depressive disorders online? A thorough review of the research literature pertaining to online therapy including the key theoretical and practical approach to treating anxiety and depressive disorders online, a critique of program effectiveness studies, and related ethical considerations are presented. The goal of the project is to provide research-based recommendations for therapists considering the use of the internet to enhance or expand their current FtF practice.

<div style="text-align:center">Project Delimitations</div>

Given the limited amount of research on the online treatment of specific anxiety and depressive disorders, this project considers these disorders from a more general perspective. Also, newer technologies (e.g., virtual reality) and more general information (e.g., rates and payment for services) will not be addressed in this project.

Key Practices and Communication Methods in Online Therapy

The practice of online therapy can be conceived along a continuum from no direct interaction with a therapist (as in some completely online programs), to computerized contact using asynchronous communication between therapist and client, to computerized synchronous communication with therapists using chat-rooms and video-conferencing, to blended online/FtF communication with therapists. Carlbring and Andersson (2006) categorize online therapy in four ways:

(1) Self-administered therapy or pure self-help; (2) predominately self-help (i.e., therapist assesses and provides initial rationale, and teaches how to use the self-help tool); (3) minimal contact therapy (i.e., active involvement of a therapist online, though to a lesser degree than traditional therapy); (4) predominantly therapist-administered therapy (i.e., regular contact with therapist for a number of sessions, but in conjunction with self-help material (p. 546).

Notable in the literature is a lack of agreement on a common term to identify what online therapy is, and what it is not, in terms of the specific technologies utilized. This is because there are a variety of online delivery methods and terms currently being utilized including: online therapy, e-therapy, cybertherapy, email therapy, internet therapy, and webcounselling (Mallen, 2005; Ragusea & VandeCreek, 2003; Rochlen, Zack, & Speyer, 2004). For the purpose of this project the term *online therapy* will be defined as:

Any delivery of mental or behavioural health services including, but not limited to, therapy, consultation, and psychoeducation, by a licensed practitioner to a client in a non-face-to face setting through distance communication technologies

such as… asynchronous email, synchronous chat and videoconference (Mallen, 2005, p.5).

This definition is necessarily comprehensive to include and define the various methods of therapeutic service delivery using computerized technology.

While there are some terms in advanced communication technology that are common knowledge (e.g., email), others require further explanation. The following is a list of key communication methods of online therapy that will be referred to throughout this paper:

1. *Asynchronous* email is a form of online communication that can be compared to letter writing (Mallen, 2005). Therapy through email is not in real time and questions and replies may occur at pre-arranged times or at irregular intervals over hours, days, or weeks (Mallen, 2005). It is noted that this form of delayed communication provides time for both the client and the therapist to reflect on and edit written thoughts prior to sending their communications (Alleman, 2002; Ragusea & VandeCreek, 2003).

2. *Synchronous* communication happens in real-time chat-sessions when the therapist and client are online at the same time. In this case, the therapist and client agree ahead of time to "meet" in the chat room for the therapy session. Typed messages are sent back and forth until the conversation ends by exiting the chat-room (Mallen, 2005).

3. *Video-conferencing,* or the ability to view and hear the client in a setting using web cameras and microphones, is becoming more popular in the online counselling field (Mallen, 2005; Ragusea & VandeCreek, 2003). Messages in this

form of communication are in real time and can be visual, aural, as well as written. Because of the ability to see and hear the client, Mallen notes that this form of online therapy is most analogous to FtF therapy.

Supporting Literature

The review of the current literature on treating anxiety and depressive disorders online revealed three key themes: (a) that cognitive behaviour therapy (CBT) is the common approach to treating anxiety and depressive disorders online; (b) while there are important methodological problems with the effectiveness research studies, online therapy appears to have promise as a means of treating these disorders; and (c) online therapy faces unique ethical issues regarding confidentiality, legal liability issues, informed consent, therapist competency, screening clients for suitability, and managing client emergencies online.

CBT as a Common Approach to Online Therapy for Anxiety and Depressive Disorders

The first theme noted in the literature is the widespread use of CBT as both the theoretical and practical approach to treating anxiety and depressive disorders online (Carlbring & Andersson, 2006; Proudfoot, 2004; Spence, Holmes, March & Lipp, 2006). At this early stage of using the internet to deliver online therapy, there is consensus in the literature that the main reason for initially using CBT in an online environment was that its linear style of treating problems relating to anxiety and depression fit well with the online environment due to the step-by-step nature of the computer (Proudfoot, 2004). The literature points to two main online CBT approaches, custom-designed treatment programs and converted online treatment programs developed from traditional FtF CBT manuals (Kenardy, McCafferty, & Rosa, 2006; Proudfoot, 2004; Spence et al., 2006).

There does not appear to be a clear delineation between which type of program is used the most for either disorder.

Methodological Problems in Effectiveness Research Studies of Online Therapy

A second theme in the literature pertains to the effectiveness studies for treating anxiety and depression online. As more and more therapists turn to this treatment approach, more empirical research is being conducted to test the effectiveness of such approaches. However, studies reporting potentially positive results should be considered cautiously since significant methodological flaws exist including: researcher bias, lack of accessibility to a computer, the qualifications of the research interviewers, sample sizes that affect the validity of the studies, and the generalizability of the effectiveness results.

Ethical Issues Related to Online Therapy

The final theme in the literature pertains to the need for online therapists to possess specialized knowledge and training to competently use the advanced communication technology essential to support this mode of therapy (Alleman, 2002; Ragusea & VandeCreek, 2003). Acquisition of these specialized skills ensures that online therapists practice within their earned competencies as well as address a number of significant ethical issues pertaining to the therapeutic process such as: ensuring client confidentiality, understanding legal liabilities, obtaining valid informed consent, screening for client suitability for online therapy, and managing client emergencies online (Canadian Psychological Association [CPA], 2001; International Society for Mental Health Online [ISMHO], 2006; Mallen, Vogel, & Rochlen, 2005; Raguesa & VandeCreek, 2003).

Summary

This chapter introduced this project as an exploration of the current status of the treatment of anxiety and depressive disorders online. It is clear that people suffering from anxiety and depressive disorders require timely treatment and that the internet is increasingly used to research mental health issues and alternate treatment approaches. The literature search resulted in three key themes: CBT as the predominate online treatment approach for anxiety and depression, the existence of significant research problems that impact the effectiveness findings, and several ethical issues related to online therapy. These themes are further examined in Chapter 2.

CHAPTER 2: LITERATURE REVIEW

The practice of delivering therapeutic services in ways other than FtF began as early as Sigmund Freud's work with *Little Hans* (Skinner & Zack, 2004). In this famous case of a five year old boy suffering various forms of phobias, Freud is noted to have communicated his analysis and impressions of this client via letter correspondence with the client's father. Borgogno (2008) argued that this indirect approach to psychoanalysis allowed Freud the objectivity needed to more realistically and accurately evaluate the whole child. Since then, other indirect methods used to deliver mental health support services include the telephone, video-linked conferencing, and computer assisted self-help services (Proudfoot, 2004; Ragusea & VandeCreek, 2003; Skinner & Zack, 2004). This chapter offers an extensive review of the current literature regarding online therapy as it relates to treating anxiety and depressive disorders. It includes: a definition of both disorders, a discussion of the current key theoretical approach to both FtF and online therapy for these disorders, critique of the research on online treatment effectiveness, and the ethical issues specific to online therapy.

Anxiety and Depressive Disorders

Anxiety Disorders

According to the CMHA (2006), people suffering from an anxiety disorder are "subject to intense, prolonged feelings of fright and distress for no obvious reason" (¶1) and these feelings interfere with every aspect of their daily functioning. Approximately 10% of adult Canadians experience some form of anxiety disorder making it the most common mental health condition in Canada today (CMHA, 2006). As a whole, anxiety disorders are a group of disorders that affect behaviour, thoughts, emotions, and physical

health. Anxiety disorders commonly co-exist with other mental health disorders such as depression and it is postulated that anxiety disorders are caused by a combination of biological factors and personal circumstances (CMHA, 2006). Symptoms of anxiety disorders may be conceived along a continuum of symptoms including excessive anxiety and worry that causes increased distress to an irrational fear about being trapped in places or situations (American Psychiatric Association, Diagnostic and Statistical Manual, [APA], 2000). People suffering from anxiety disorders have a tendency to process new information from a perspective of impending danger and may exaggerate their thoughts and emotions to the point of distorting reality (Beck & Weishaar, 2005; Weinrach, 1988).

Depressive Disorders

According to the Centre for Addition and Mental Health (CAMH; 1999) 10-25% of Canadian women and 5-12% of Canadian men experience some form of depressive disorder. Depressive disorders may also be conceived along a continuum that ranges from a sad disparaging mood that "is present most days and lasts most of the day, lasts for more than two weeks, and impairs the person's performance at work, at school or in social relationships" (CAMH, 1999, ¶ 2) to severe major depressive disorder characterized by one or more major depressive episodes lasting at least two consecutive weeks (APA, 2000). People who suffer from a depressive disorder often experience physiological symptoms such as decreased appetite, sleeplessness (or excessive sleepiness), as well as affective responses such as hopelessness, guilt, and worthlessness that may lead to thoughts of suicide (CMHA, 2006). People with depressive disorder characteristically engage in negative thinking patterns that eventually lead to having an overly negative view of self, world, and the future (Beck & Weishaar, 2005).

Key Theoretical Approach in FtF and Online Therapy for Anxiety and Depression

Traditional FtF CBT for Anxiety and Depressive Disorders

CBT got its start in the mid-1950s when Aaron Beck, a psychoanalytic therapist, noticed that people with depression processed information from a negative perspective as opposed to having an internal struggle with anger (Beck & Weishaar, 2005). The discovery of this negative bias led Beck to study the influence of cognition on people's behaviours, thoughts, and feelings. As a result, CBT was developed as a way of explaining and correcting the distorted thoughts that lead people to experience dysfunctional patterns of thinking and behaving (Beck & Weishaar, 2005). While other theories (e.g., post-constructivism with practices such as solution focused therapy and narrative therapy) also underlie treatments for these disorders, CBT is currently the most common approach to dealing with anxiety and depressive disorders (Beck & Weishaar, 2005; Cormier & Nurius, 2003).

According to Beck (in Weinrach, 1988), CBT is a "problem-oriented therapy" (p.160), meant to rapidly relieve symptoms in a short period of time. The basic constructs of CBT are to:

(a) Identify automatic thoughts; (b) determine the core beliefs they are rooted in; (c) find evidence to counteract current, negative core beliefs; (d) find evidence to create adaptive coping techniques; and (e) utilize these new coping techniques whenever anxiety/stress present themselves in day-to-day life (Van Der Borne, 2003, ¶ 13).

Traditional CBT change strategies include a psycho-educational component that outlines the basics of CBT and the etiology of the problematic cognitions, strategies and activities

to connect thoughts, feelings, and behaviours, problem-solving techniques, cognitive restructuring, and behaviour tracking exercises (Beck & Weishaar, 2005).

<div align="center">*Online CBT for Anxiety and Depressive Disorders*</div>

Proudfoot (2004) identifies that CBT is especially suited to computerization as it is a systematic process that "is a structured therapy; it has well-delineated procedures and a clear conceptualization to guide selection of procedures" (p. 356). Online CBT therapy is typically modularized following traditional CBT practices including a psycho-educational component regarding anxiety or depression, cognitive restructuring exercises, problem-solving techniques, and behaviour tracking exercises; in vivo, graded exposure, and relaxation techniques were also included for people with anxiety-related issues (Carlbring et al., 2005; Carlbring, Furmark, Steczko, Ekselius, & Andersson, 2006; Kenardy et al., 2006; Spence et al., 2006). MoodGYM and FearFighter, two popular computerized CBT programs that are discussed in detail later in this chapter, include downloadable relaxation sessions and a step-by-step self-exposure therapy guide for participants to follow (Calbring et al., 2006; Schneider, Mataix-Cols, Marks, & Bachofen, 2005).

Online therapy sessions typically include multiple choice questions, self-rating questionnaires, activity schedules, and behavioural exercises (Proudfoot, 2004; Spence et al., 2006). Homework is assigned after each session and clients either email their homework to the therapist or receive immediate computerized feedback from the self-directed computer program (Proudfoot, 2004; Marks et al., 2003).

Online Text-based Communication

While other forms of online therapy exist (e.g., chat-rooms and video-conferencing), the research indicates that asynchronous communication between client

and therapist is still the most commonly used (Proudfoot, 2004; Ragusea & VandeCreek, 2003). There are several beneficial effects of text-based communication that therapists may use in the counselling process. First, to track client changes and progress, FtF CBT therapists often enlist the use of self-monitoring tools such as *thought records* (Cormier & Nurius, 2003; Greenberger & Pedesky, 1995). Thought records are analogous to a journal as a method of recording thoughts, behaviours, and feelings regarding a specific distressful situation (see Appendix A). Cormier and Nurius (2003) suggest that this kind of paper-and-pencil self-monitoring format can be easily transferred to a computerized form for use with online clients. Both MoodGYM and FearFighter have clients track their thoughts, behaviours, and feelings in a thought record format.

Laszlo, Esterman, and Zabko (1999) recommended that online therapists pay particular attention to the presence of cognitive distortions, such as *overgeneralizations,* when reading their clients' thought record submissions. Overgeneralizations occur when one abstracts a general rule from one situation and applies it to all other similar situations, by using words such as "always", "every time", or "everyone" (Cormier & Nurius, 2003). Specific to anxiety, Beck (in Weinrach, 1988) stated that persons with anxiety disorder perceive life as dangerous and therefore tend to magnify or catastrophize seemingly trivial events. Following the same investigatory principle, Laszlo et al. suggest online therapists look for themes or patterns in clients' written responses that indicate an increased irrational level of perceived danger.

Second, Trepal, Haberstroh, Duffey, and Evans (2007) suggest that an online journal helps clients track their progress and explore their concerns from a more objective perspective by providing a means to externalize or to express thoughts and emotions in a

written format instead of just processing the information internally. In this way, writing provides the client "distance" from the problem that is different from talking about the problem while also providing the client the opportunity to read, review, and edit their writing thereby gaining a better understanding of the problem (Wright, 2002).

Lastly, writing in general can play an important role in online therapy as researchers note that writing in an online environment has a disinhibiting effect due to the perceived anonymity of this environment (Ragusea & VandeCreek, 2003; Suler, 2001; Wright, 2002). Research indicates that clients who use text-based communication with their therapist present their concerns more quickly and more openly than do FtF clients (Ragusea & VandeCreek, 2003; Suler, 2001; Wright, 2002). For instance, a person struggling with his or her sexual orientation may "come out" sooner online than in an FtF therapy session perhaps due to the enhanced sense of safety and security from perceived judgement that may be present in FtF encounters (Suler, 2001; Wright, 2002). The disinhibiting effect of writing online may also be detrimental to the therapeutic process, as increased anonymity experienced by some clients may encourage clients to write things that would likely not be said in FtF therapy, opening up the possibility for negative or abusive communication toward their therapist (Suler, 2001).

Online Treatment Programs

The literature revealed two distinct types of treatment programs for delivering online therapy for anxiety and depression: custom-designed programs and computerized versions of traditional CBT-based manuals. MoodGYM, BluePages, and FearFighter are examples of custom-designed online programs and are the most frequently cited online therapy resources in the research literature.

Examples of custom-designed treatment programs. MoodGYM and BluePages were developed by Dr. Helen Christensen and Dr. Kathy Griffiths at the Centre for Mental Health at the Australian National University and were funded by grants from the National Health and Medical Research Council Program Grant, Commonwealth Department of Health, the Department of Health and Ageing, and the Vincent Fairfax Foundation (Griffiths & Christensen, 2007). MoodyGYM (http://moodgym.anu.edu.au) is a computerized CBT-based program created in 2001 in response to the increased need for accessible treatment for depressive disorders and is offered to clients at no charge via the internet. BluePages (http://bluepages.anu.edu.au) is a psycho-educational website developed in response to the need for an information-only website about depression (Griffiths & Christensen, 2007).

Griffiths and Christensen (2007) state that MoodGYM provides "automated online CBT. It can be completed [with] or without health professional involvement, as an adjunct to treatment by a GP or a mental health practitioner …" (p. 82). The intent of the program is to help clients develop and implement more productive coping skills and thought patterns to prevent or diminish depressive symptoms. This 10-week program consists of five interactive modules that focus on changing dysfunctional thinking patterns using: behavioural activities, relaxation techniques, problem solving, assertiveness and self-esteem training, and strategies for coping with relationship concerns (Griffiths, Christensen, Jorm, Evans, & Groves, 2004).

While most clients independently access the program via the internet, Griffiths and Christensen (2007) point out that 18.6% of participants indicated a health practitioner referred them to the program. Pre-and post-assessments include the Goldberg Depression

and Anxiety scale as part of the treatment regime (Goldberg, Bridges, Duncan-Jones, & Grayson, 1988). Clients are encouraged to work through each of the modules systematically over the 10-week period. After each module is completed, participants submit it online to a therapist who reviews it and provides feedback. Once each module has been successfully worked through, the therapist emails the client a code to continue onto the next module. Therapists may also contact clients by phone or email to encourage continued participation in the program.

The BluePages website provides clients evidenced-based information about depression including the causes, common signs and symptoms of depression, as well as evidence-based treatment options (both online and FtF) for this disorder. This website includes online screening tests for anxiety and depression, downloadable relaxation tapes, support resources, and links to other depression-based websites (Griffiths & Christensen, 2007). The unique aspect of this site, compared to others that offer similar information, is that it is the only one that has been evaluated for effectiveness regarding their information dissemination using randomized control trials (Griffiths & Christensen, 2007). This is because BluePages is frequently used as a comparative treatment condition in effectiveness studies (proving to be effective in increasing participants' understanding and attitudes toward depression) as well as a treatment option when compared to non-treatment control groups.

In 2007, the developers of MoodGYM and BluePages conducted a systematic review of nine evaluative studies concerning these two online resources and found that clients reported an overall improvement in their mood, knowledge, and attitudes toward depression and anxiety and that users of MoodGYM experienced more of a reduction in

dysfunctional thoughts than did users of BluePages. Results of the review also indicated that not all users completed all the modules in MoodGYM but that overall completion rates are comparable to that of clients in FtF therapy (Griffiths et al., 2004).

In 2001, Stuart Toole and Professor Isaac Marks developed the custom-designed computer-assisted program (i.e., computerized support with minimal human interaction) FearFighter (http://www.fearfighter.com/) for people seeking help for anxiety, panic, and phobic disorders (Kenwright, Liness, & Marks, 2001). This program is endorsed by Britain's National Institute of Clinical Excellence (NICE) and sponsored by the Institute of Psychiatry London and West London Mental Health Trust.

FearFighter can be accessed via the internet with or without a referral from a physician and consists of nine modules including: an introduction to the program, a pre-test rating scale, information on CBT and anxiety, a problem sorting activity to help identify triggers for anxiety, goal setting, strategies for managing anxiety, a method of rehearsing goals (graded exposure therapy), and a way of tracking progress (Computerized Cognitive Behaviour Therapy [CCBT], 2005). Participants receive a total of one hour of support service provided by a specially trained FearFighter clinician (usually a practice nurse or graduate student) over the course of the program and are encouraged to use the site frequently and at least once a week for 10 weeks (CCBT, 2005).

Marks (2004) reported that participants in the FearFighter program experienced a reduction of their symptoms of anxiety and phobia at similar rates to participants in an FtF therapist-assisted treatment group. Also, completion rates among participants in the FearFighter program were similar to clients in FtF therapy; however, clients in the

FearFighter program used less therapy time than the FtF therapy group (Kenwright et al., 2001). Reduced therapy time is possible because the design of computerized treatment programs allow for routine therapy tasks such as the dissemination of psycho-educational information about anxiety and CBT, identifying triggers of anxiety or phobia, and writing treatment goals, to take place via computerized modules as opposed to FtF therapy sessions (Kenwright et al., 2001).

Examples of converted computerized treatment programs. In addition to these custom-designed programs, several researchers have converted traditional FtF clinic-based CBT programs into blended (i.e., combined online and FtF) computerized delivery formats (Carlbring et al., 2005; Carlbring et al., 2006; Spence et al., 2006). Although there was not one common manual used, the modules in these converted programs typically include a psycho-educational perspective of anxiety or depression, cognitive restructuring exercises, problem-solving techniques, and behaviour tracking exercises. For people with anxiety related issues, in-session and graded exposure exercises, and relaxation techniques were also included (Carlbring et al., 2005; Carlbring et al., 2006; Kenardy et al., 2006; Spence et al., 2006).

In a typical study of a converted treatment program, Spence and colleagues (2006) divided study participants into three groups: clinic-plus-internet, FtF clinic-based CBT, and a waitlist control group. Therapists conducting the two treatment conditions used the same CBT manuals as a guide to treatment. Both conditions included: addressing the physiological symptoms of anxiety using progressive muscle relaxation, guided imagery, and deep breathing, coping self-talk, cognitive restructuring, graded exposure, problem solving, and self-evaluation and reward of progress in symptom

reduction and relapse prevention. The clinic-plus-internet participants were brought into the clinic to accommodate particular tasks such as cognitive restructuring, graded exposure, and relapse prevention. The findings of the study suggest that the two treatment-based groups experienced significant reductions in anxiety symptoms at a similar rate and were more likely to be free of their anxiety diagnosis when compared to the waitlist control group.

While these specific online treatment programs (i.e., custom-designed and converted computerized programs) have all been demonstrated as effective in reducing negative symptoms in empirical studies, it is important to note that the creators of these programs conducted most of these studies. This fact does not necessarily weaken the findings; however, it does bring into question researcher bias and the subsequent need for outside research studies (Kaltenthaler, Parry, & Beverly, 2004).

Online Therapist-Client Relationship

It is argued that in order for therapists to gain a thorough understanding of their clients' issues, a positive therapeutic working alliance must be established (Gelso & Carter, 1994; Hiebert, 2001). One of the criticisms of conducting therapy online is the perceived difficulty in developing a therapeutic relationship without visual cues to alert therapists to the client's experience of the therapy session (Finn, 2002; Heinlen, Welfel, Richmond, & O'Donnell, 2003). However, Powell (2006) points out that this lack of visual cues does not hinder therapy with the hearing and sight-impaired clients. Further, Ragusea and VandeCreek (2003) propose that the increased use of web cameras in video-conferencing may mitigate these perceived barriers to online communication.

Cook and Doyle (2002) demonstrate that the online client-therapist relationship is as strong as in FtF therapy in a small scale study of 15 online clients and 25 FtF clients where the online participants scored higher on the working alliance inventory in terms of goals and composite scores than did a comparable group of FtF clients. The findings suggest that online clients communicating with their therapists in written form (i.e., email or chat) experienced a greater sense of connection and collaboration with their therapist than did the FtF group. Comments made by three online study participants indicated that expressing their feelings and thoughts in written form was easier than talking in FtF sessions (Cook & Doyle, 2002).

Beck and Weishaar (2005) describe the therapeutic relationship in traditional FtF CBT as collaborative, where the therapist assesses "sources of distress and dysfunction and helps the patient clarify goals" and the client provides "the thoughts, images, and beliefs that occur in various situations as well as the emotions and behaviors that accompany the thoughts" (p. 251). As therapy progresses, the more active and directive role of the therapist gives way to the client taking the lead in his or her own healing process (Beck & Weishaar, 2005). Thus, the therapist becomes available to the client as more of an advisor versus a teacher. Therapy is terminated when the client reaches his or her goals and expresses a desire to practice his or her newly acquired skills in real life (Beck & Weishaar, 2005).

In keeping with this CBT process of clients essentially becoming their own therapist, computerized treatment programs use self-help principles by working from a *stepped care* format. The underlying assumption in stepped care is that clients can be taught to manage their own health needs effectively with minimal therapist support

(Griffiths & Christensen, 2007; Kaltenthaler et al., 2004; Marks et al., 2003; Proudfoot, 2004). Stepped care is best understood in two-phases: teaching and referral. First, to support clients' autonomy, computerized programs are designed to frontload clients with psycho-educational information about their disorders and offer strategies and exercises to help alleviate their symptoms while providing access to a therapist (either through email or telephone) for guidance and support (Proudfoot, 2004). In the second phase with clients who are not successful in the computerized programs (i.e., they did not experience symptom reduction or they expressed concern with the predominately computerized format), referral into a more direct therapy program is made (Marks et al., 2003).

While the research supports the positive role of the therapist in the stepped care approach, the optimal therapist role in the online therapy process is still not fully understood (Carlbring et al., 2006; Kaltenthaler et al., 2004). Studies indicate that it is difficult to discern the contribution of therapist support on the client's improvement versus that of the online activities alone (Carlbring et al., 2005; Carlbring et al., 2006; Proudfoot, 2004; Shepherd & Edelmann, 2005). It is also known that too little therapist support may lead to increased client drop out rates if clients feel unsupported by the therapist during the change process (Carlbring et al. 2005; Proudfoot, 2004; Shepherd & Edelmann, 2005). Further research is needed to clarify the role, optimal amount of contact, and overall impact of therapists in the online therapy process.

Summary

In terms of the current status of online therapy for anxiety and depressive disorders, the literature indicates that some clients with these disorders find it difficult to access timely traditional FtF therapy and often suffer from their untreated symptoms in

silence. Thus, the internet has started to be used as platform to develop and disseminate computerized treatment programs based on traditional FtF CBT therapy strategies for clients with anxiety and depressive disorders. Currently, the two types of online programs, custom-designed and modified CBT manuals, capitalize on the therapeutic benefits of writing by incorporating written exercises into the treatment regime. As such, some online clients appreciate the freedom of expression that text-based communication provides and this disinhibitive effect facilitates a strong working alliance between them and their online therapists. However, further research is needed to gain an understanding of the optimal role of the therapist in online therapy programs.

<div align="center">Critique of the Research on Program Effectiveness</div>

Traditional methods to test effectiveness of any therapy involve comparing a treatment group to a non-treatment control group, or the new intervention to one that already exists (Mallen, 2005). To test effectiveness of online therapy, it is necessary to monitor and compare changes for those clients receiving treatment via the internet with those who received the identical treatment in FtF sessions, blended FtF/online session, or to a no-treatment control group. Currently, there is limited research regarding effectiveness of online programs and the studies reported in the literature appear to have several research concerns that impact the ability of readers of these studies to judge the efficacy of online programs in treating anxiety and depressive disorders. These methodological problems include: researcher bias, accessibility to computers, qualifications of the research interviewers, sample sizes, generalizability of the findings, and the use of client satisfaction surveys as a means to rate effectiveness.

Researcher Bias

Research on program effectiveness may be open to researcher bias if it is the developers and/or researchers of the online therapy programs being evaluated who are conducting the studies (Carlbring et al., 2005; Kenwright et al., 2001; Klein, Richards, & Austin, 2005; Spence et al., 2006). Some researchers in this position openly declare a potential conflict of interest (MacKinnon, Griffiths, & Christensen, 2008; Proudfoot, 2004; Proudfoot et al., 2004), while others do not (Carlbring et al., 2005; Kenwright et al., 2001; Klein et al., 2005; Spence et al., 2006). Kaltenhaler et al. (2004) suggest that the research findings from studies conducted by the developers of the online programs may reflect an inherent allegiance to the therapy program necessitating independent studies of the programs. Only rigorous studies completed by independent researchers allow for a non-biased evaluation of the effectiveness of online counselling.

Accessibility to Computers

Klein and associates (2005) point out that research studies investigating online treatment programs require participants to have access to a computer and those who do not are thereby excluded from the studies even though they meet the eligibility criteria. In response to this problem, some studies provided dedicated computers at local General Practitioner's office, libraries, or cyber-cafes in the hopes of reducing this perceived barrier to treatment (Kenardy, McCafferty, & Rosa, 2003; Kenwright et al., 2001). Still, some participants who did not have a computer in their home indicated the primary reason for discontinuing participation in the study was due to the added travel to access a computer (Kenardy et al., 2003).

Qualifications of the Research Interviewer

Overall there were inconsistencies with regard to the reported qualifications of the research team member who selected study participants. Some studies indicated that the people who conducted the initial screening interviews were members of the research team. Only five out of the nine studies reviewed (Berger et al., 2005; Campbell et al., 2006; Carlbring et al., 2005; Marks et al., 2003; Spence et al., 2006) explicitly described the research interviewer and of the five studies, four mentioned their qualifications. Spence et al. (2006) indicated that a trained psychologist conducted the initial interviews, while Carlbring et al. (2005) used master's level therapists and clinical psychologists with minor-to-modest clinical experience with clients with panic disorder who were supervised by an experienced licensed CBT psychologist. Berger et al. (2005) used an organization whose main function was to contact households via telephone to administer their questionnaires. Marks et al. (2003) used two nurse therapists to screen the potential participants; however, the clinical team also included a research psychologist and two consulting psychiatrists. Lay-interviewers with a one-day training course were used in Griffiths et al. (2004) and Campbell et al. (2006) created a website housed at the University of Sydney, Australia to screen clients but made no mention of who was then reviewing the screening questionnaires. These inconsistent qualifications of the research interviewer screening participants make assessing the quality of the studies difficult.

Sample Sizes

The maximum numbers of participants in any reviewed study was 26 (Carlbring et al., 2006) to 525 (MacKinnon et al., 2008). Some of these studies suggested that the sample size was sufficient to produce within-group effectiveness, but not sufficient to

prove between group effectiveness. Kenwright et al. (2001) conducted a feasibility study that compared 32 participants that completed the FearFighter program to 31 outpatients who received FtF therapist-assisted self-exposure therapy. They found that clients in the computerized group completed the program at rates similar to FtF therapist-assisted group while using less therapist time than did the therapy-assisted group to achieve similar benefits. However, the small sample size and subsequent lack of follow-up data on non-completers necessitates the need for further research to gain a clearer understanding of the effectiveness of online therapy. Similarly, Klein et al. (2005) suggest that the number of participants in their study (18 and 19 for the two conditions) did not meet the criteria for establishing statistically supportable differences between treatments and did not allow them sufficient numbers to evaluate effectiveness at follow-up.

Generalizability of the Findings

While it is required that participants in the studies meet the criteria for anxiety and depressive disorders, it is difficult to ascertain whether the study participants were representative of people suffering from anxiety or depressive disorders outside this group for several reasons. First, Griffiths et al. (2004) used a voter's registry to select potential participants for participation in a MoodGYM study, excluding those who are not registered. Second, several studies only used participants who were familiar with and actively using the internet, thus potentially skewing the effectiveness outcomes more favourably (Carlbring et al., 2005; Klein et al., 2005). Finally, Kenardy et al. (2003) disclosed that the university students in their study received additional credit for their participation, opening up the possibility that these participants vary greatly from the

larger population in their motivation to participate in and complete the study, their experience of anxiety symptoms, and their skills and access to computers.

The Use of Client Satisfaction Surveys

Client self-rated satisfaction surveys of various aspects of the program (i.e., modules, pace of the program, symptom reduction) were commonly used in the studies to measure program effectiveness (Carlbring et al., 2005; Kenwright et al., 2006; Spence et al., 2006). At 12 month follow-up, almost 74% of participants who underwent online therapy no longer met the criteria for anxiety and reported being symptom free (Kenardy et al., 2006; MacKinnon et al., 2008). These client satisfaction surveys indicated positive effects for clients, but as with self-rated surveys in general, they lack the reliability and validity necessary for a robust research study. Overall, while clients' approval of the programs may be related to symptom reduction, empirical evidence is required before such claims can be unequivocally made.

Summary

Preliminary research indicates that participants in online therapy programs experienced a reduction in symptoms at a rate similar to FtF clients (Griffiths et al., 2004; Kenwright et al., 2001; Spence et al., 2006). In addition, Kenwright et al. (2001) and Marks et al. (2003) posited that online programs might be "therapy extenders" as these programs make it possible to deliver psycho-educational aspects of therapy such as the introduction to CBT and the epidemiology of anxiety and depression online. However, several serious methodological issues call these research results into question. Only empirically sound research can accurately assess the effectiveness of online therapy.

Ethical Considerations in Online Therapy

As with any form of therapy, it is necessary to consider the ethical challenges presented to clinicians in an online therapy environment. Confidentiality, legal liabilities, informed consent, therapist competence, screening of clients for online therapy, and dealing with client emergencies online are all important ethical challenges that online therapists face.

Ethical Issues in FtF Therapy

The Canadian Psychological Association Code of Ethics for Psychologists (CPA, 2001) provides ethically sound guidelines that govern its members' professional behaviours. The CPA's code of ethics (2001) involves four key principles: respect for the dignity of persons, responsible caring, integrity in relationships, and responsibility to society. Subsumed under each principle is a list of practice standards that range from minimal-behaviour expectations such as obtaining informed consent (Standard I.20) to more "idealized, but achievable, attitudinal and behavioural expectations" (p. 29) such as fair treatment/due process (Standards I.12) and engaging in self-care activities (Standard II.12). It is the responsibility of all psychologists to inform themselves of and practice within these ethical guidelines when working with clients.

Ethical Issues in Online Therapy

In 1997, the ISMHO was formed to "promote the understanding, use, and development of online communication, information, and technology for the international mental health community" (ISMHO, 2006, ¶1). In 2000, the ISMHO published the "Suggested Principles for the Online Provision of Mental Health Services" as a guide for therapists using mainly online services or a combination of FtF therapy and online

services. Since then, key professional organizations associated with the counselling

professions such as the American Counseling Association (ACA, 2005), the Canadian

Psychological Association (CPA, 2006), and the National Board of Certified Counselors

(NBCC, 2005) have adapted their codes of ethics and standards for FtF practice to online

practice.

Generally, the professional standards of the ACA, CPA, and NBCC can be

grouped into three areas of concern outlined in the ISMHO document: informed consent,

standard operating procedures, and emergencies. The first ethical issue of informed

consent requires that clients have a clear understanding of the type of service that they are

being offered including information about: the process of online therapy, the online

therapist's credentials, the risks and benefits associated with online therapy, safeguards to

be taken by both the online client and therapist regarding the risks associated with online

communication, and availability of alternative FtF services (ACA, 2005; CPA, 2006;

ISMHO, 2000; NBCC, 2005).

The second ethical concern regarding standard operating procedures relates to

ensuring that therapists are qualified to offer online counselling, that therapists

understand their scope of practice and hold a licence to provide the services being

offered. As well, clients must be aware of the structure of the online services (i.e.,

frequency and mode of communication), client confidentiality, assessment procedures

(i.e., client suitability), procedures for keeping client records, and adherence to the

therapist's appropriate governing body (ACA, 2005; CPA, 2006; ISMHO, 2000; NBCC,

2005).

The last notable concern outlined by the ISMHO refers to the likelihood that online therapists do not receive online clients' information about emergency situations immediately and consequently need to prepare clients proactively to know about local crisis organizations that they can access if needed (ACA, 2005; CPA, 2006; ISMHO, 2000; NBCC, 2005). The CPA, ISMHO, and ACA suggest that when/where possible, online therapists have an initial in-person session to discuss emergency plans as well as the process of online therapy in general.

Key Ethical Challenges in Online Therapy

Confidentiality Issues

Confidentiality in online therapy is synonymous with computer security; clinicians must ensure that no one but the therapist and client has access to the therapeutic process or documents produced online. There are three important aspects to confidentiality that must be considered: computer security features, ensuring client privacy online, and verifying client identification.

Computer security features. Given the ever changing technology, keeping pace with computer security systems may be difficult to manage yet it is imperative for therapists who practice online (Mallen et al., 2005; NBCC, 2005; Robson & Robson, 2000). Ragusea and VandeCreek (2003) advised that three key security features are needed to secure client information on the internet. First, a *firewall* must be installed on both the therapists and clients' computers. A firewall's basic purpose is to regulate the flow of traffic between computer networks of different trust levels, acting as a door or filter that allows only certain information into the computer (Ragusea & VandeCreek, 2003). Second, an *intruder detection system* (IDS) is recommended to monitor any

unauthorized activity on the computer (Ragusea & VandeCreek, 2003). Third, *anti-virus* software is used to detect any malicious codes (i.e., viruses) sent to interfere with the function of the computer (Ragusea & VandeCreek, 2003). While the combination of these three security features heightens confidentiality, there are currently no guarantees that a client's communication will be 100% protected (Alleman, 2002; Finn, 2002; Ragusea & VandeCreek, 2003; Robson & Robson, 2000).

    Ensuring client privacy online. The second issue concerning confidentiality pertains to client privacy. There are several examples of ways that online therapy clients can keep their information confidential:

1. Clients should ensure that they are in a private setting prior to logging on for their online therapy session. Alleman (2002) suggested that clients refrain from accessing confidential information using publicly accessed computers (i.e., work or school-based computers) as family members, employers, and other persons may gain access to their private information (Ragusea & VandeCreek, 2003).

2. Clients should double-check the email address of the recipient prior to sending any information to their therapist. Human error in entering an email address has sometimes resulted in an email being sent to the wrong person; accidentally sending private information meant for the online therapist to a friend or family member can result in embarrassing and painful situations for the client (Childress, 2000; Recupero & Rainey, 2005).

3. Clients should use password-protection applications, making it possible for only the client to enter the site with the therapist (Alleman, 2002; Finn, 2002). Of course, this level of protection is only useful if the client is able to keep the password private. Further, Ragusea and VandeCreek (2003) suggest that when using a chat-room, the therapist and client should create a key phrase that is known only to them to type in prior to the start of the session.

4. Clients should be familiar with *encryption* and should use this technology when sending and receiving emails to their therapist (Finn, 2002). Encryption is a software application that scrambles messages so that only individuals with compatible software have the ability to unscramble the message to make it readable (Alleman, 2002). However, once an email is unscrambled, the client can print and distribute the therapist's written word at will (Alleman, 2002).

5. Text-based communication may be stored on computers indefinitely even though a client may have deleted their session. Given this fact, Ragusea & VandeCreek (2003) propose that clients should possess the skills to properly purge their computers of private, therapy-related files.

Verifying client identity. The final issue regarding confidentiality addresses client identity confirmation. It is not always possible for online therapists to confirm the identity of their online clients as some clients may misrepresent themselves online by providing false personal information or have someone falsely represent them during therapy sessions (NBCC, 2005; Ragusea & VandeCreek, 2003). The use of web cameras

and video-conferencing technology may facilitate the verification process if used by both the therapist and client in the provision of services (Ragusea & VandeCreek, 2003). It is because of these risks that Heinlen et al. (2003) suggest that online therapists use security features, such as passwords and web-cameras, to verify the identity of their online clients.

Legal Liability Issues

According to the current research, there are no reported cases in litigation related to the provision of online therapy (Mallen et al., 2005; Ragusea & VandeCreek, 2003). However, jurisdiction of practice and legal proceedings are two main legal liability issues that must be addressed.

Jurisdiction of practice. Therapists are required to be licensed to practice in their own jurisdiction, but given the nature of online therapy, it is difficult for clinicians to determine if clients reside within their practice jurisdiction and therefore that both the therapist and client have a safety net under which services are provided (Alleman, 2002; Heinlen et al., 2003; Mallen et al., 2005; Recupero & Rainey, 2005; Robson & Robson, 2000). For example, if jurisdictional boundaries are not apparent and an online client lodges a complaint against his or her therapist who is not licensed in the client's jurisdiction, there is no clear understanding of the process by which such a compliant would be addressed (Childress, 2000; Mallen et al., 2005; Recupero & Rainey, 2005).

In terms of insurance coverage, the current CPA's (2008) professional liability insurance program stipulates that professional liability coverage extends to psychologists (FtF or online) practicing anywhere in Canada. Likewise, the American Psychological Association (2002) insurance trust covers online services provided by psychologists within their licensed state and Canada. However, in both of these instances, should a

psychologist provide services to a client outside of their jurisdiction of coverage and that psychologist becomes the subject of a client claim, there is a strong likelihood that the psychologist would be not be insured (Mallen et al., 2005).

Legal proceedings. In all forms of business, there exists the possibility of legal action by the clients served. Given this fact, online therapists need to consider the possibility that their email records may be subject to subpoena (Mallen et al., 2005). While professional communications with physicians and attorneys are considered legally privileged, Childress (2000) cautioned that this protection does not extend to online therapists. Importantly, even if legal protection is offered, the provision of such protection may be different in each jurisdiction (Childress, 2000; Mallen et al., 2005).

Obtaining Informed Consent from Online Clients

Online therapists must obtain clients' consent to engage in the various therapeutic activities and services that are involved in the counselling sessions (CPA, 2006; ISMHO, 2000; Standard 2, NBCC, 2005). Informed consent involves advising the client of the risks, benefits, and limitations specific to online therapy including: the potential for misunderstandings, limitations to privacy, safeguards needed to protect his or her privacy, and time lapses between client submissions and therapist responses when using text-based (email) communication (Heinlen et al., 2003; Recupero & Rainey, 2005). Mallen and his colleagues (2005) developed a consent form for online clients as a way to inform clients about these idiosyncrasies of online therapy (see Appendix B). Mallen et al. (2005) note that this consent form may be filled out by the client online or during an in-person session as a way to verify client identification.

Websites are another way that online therapists inform clients of their credentials including their identity, qualifications, and training while also providing the client with the means to easily verify the information (Standard III.2, CPA, 2001; Heinlen et al., 2003; ISMHO, 2000; NBCC, 2005). Thus, websites developed by online therapists should provide the means for their clients to verify their credentials and licensure bodies along with statements regarding the jurisdictional boundaries of their services, scope of practice, the limits of confidentiality, as well as internet-specific issues such as the lack of non-verbal cues, delayed response times, and potential technical disruptions (Mallen et al., 2005).

Palmiter & Renjilian (2003, as cited in Mallen et al., 2005) suggested that online therapists ensure that their websites include information such as hours of availability, lists of problems treated, list of therapies offered, years of experience, emergency procedures, description of policies, general information on therapy, and a resume and a picture of the therapist. Ragusea and VandeCreek (2003) added that online therapists should also be prudent regarding the type of advertisements that are displayed on their websites. They suggest advertisements should be "representations of the therapist, and the therapist should be able to vouch for the quality of the advertised site" (Ragusea & VandeCreek, 2003, p. 99) and that all other informational links should be included on a resource page elsewhere on the website. This precaution is important as clients may miss the fact that websites may be directly or indirectly sponsored by commercial companies trying to sell or garner support for their products (Bell, 2007).

Obtaining informed consent is further complicated when working online with minors since online therapists must obtain informed consent from a parent or legal

guardian prior to entering into a counselling relationship with a minor (Standard 1.34, CPA, 2001; Standard 2, NBCC, 2005). To verify the identity of the person granting consent for the minor client, the CPA (2006) suggests that online therapists have an in-person contracting session with the parent or guardian. However, the online minor client may wish to seek therapeutic services without the knowledge of his or her parents or guardians. In this case, Alleman (2002) and Ragusea and VandeCreek (2003) propose that offering therapy without informed consent from the parent or legal guardian, at least an initial consultation, is worth the risk if an online therapist is able to establish that the benefits of offering therapy to a minor outweigh the costs. According to Evans (2004), Myers (1982), and various government acts (e.g., British Columbia Infants Act, Section 17, Subsection 3b, 1996; Alberta Mental Health Act, Part 3, Subsection 26, 2000), therapists who work with minors may extend treatment services to a minor client (under the age of 19 years) if they have evaluated that the client has the presumed capacity to fully understand the treatment processes, and that they are acting in the best interests of the client. Still, Evans (2004) suggests that therapists research their local law and statues and that they diligently document interactions with their minor clients.

Therapist Competency

Online therapy is an emerging field and all online therapists must practice within the scope of their competence as well as keep current with advancing related technology (Standards 11.6 & 11.9, CPA, 2001; McCrickard & Butler, 2005). Further, it is imperative that online therapists have the required skills and knowledge to use these technologies prior to using them with clients in therapy (Alleman, 2002; Finn, 2002; Mallen et al., 2005; Ragusea and VandeCreek, 2003). There are two types of online

competencies required to adequately and ethically provide services: technological and counselling.

Technological competencies. In an effort to standardize the knowledge and skills needed to successfully and effectively use computer mediated technology, the Association for Counsellor Education (ACES, 1999) proposed a list of 12 competencies that graduates from counsellor education programs should possess (Table 1).

Table 1

Technical Competencies for Counsellor Education Students: Recommended Guidelines for Program Development by ACES Technology Interest Network

At the completion of a counsellor education program, students should:

1. Be able to use productivity software to develop web pages, group presentations, letters, and reports

2. Be able to use such audiovisual equipment as video recorders, audio recorders, projection equipment, video conferencing equipment, and playback units

3. Be able to use computerized statistical packages

4. Be able to use computerized testing, diagnostic, and career decision-making programs with clients

5. Be able to use email

6. Be able to help clients search for various types of counselling-related information via the Internet, including information about careers, employment opportunities, educational & training opportunities, financial assistance/scholarships, treatment procedures, and social and personal information

7. Be able to subscribe, participate in, and sign off counselling related listservs

8. Be able to access and use counselling related CD-ROM databases

9. Be knowledgeable of the legal and ethical codes, which relate to counselling services

    via the Internet

10. Be knowledgeable of the strengths and weaknesses of counselling services provided

    via the Internet

11. Be able to use the Internet for finding and using continuing education opportunities in

    counselling

12. Be able to evaluate the quality of Internet information

(Association for Counsellor Education and Supervision Technology Guidelines, 1999)

       The competencies in Table 1 are reflected in the CPA's (2006) "Ethical Guidelines for Psychologists Providing Psychological Services via Electronic Media" (see Appendix C) advising therapists to educate themselves on the use of electronic media in counselling and to only use those applications in which they have been appropriately trained (Principle I, Standard 4; Principle II, Standard 1, CPA, 2006). Ragusea and VandeCreek (2003) and Mallen et al. (2005) added that this education may be relatively easy given that applications such as encryption, chat-rooms, and video-conferencing often include step-by-step instructions as part of the downloadable software package. For instance, encryption software is commonly found on most personal computers and if this application is selected prior to sending a message, users are prompted through the process (Ragusea & VandeCreek, 2003). As noted earlier, encryption software offers a high degree of online security by scrambling text-based messages and requires users to have compatible software and passwords to unscramble these messages.

Chat-room applications are readily available on the internet through websites such as Gmail™ and Skype™ where users are given instruction on how to install the application, then are taught how to use the application in step-by-step pop-up prompts. In general, clients establish a user name and password, then search and add people whom they wish to contact to their contact list. Once the potential contact person has accepted the request to be added to the users list, communication between the two parties begin when either one 'calls' the other. Given that this form of communication is not as secure as using encryption, Ragusea and VandeCreek (2003) suggest that online therapists use a password to "meet" their online clients in a private room at a pre-arranged time as a way to verify the identity of the person entering the room. The advantage of conducting therapy sessions in a chat-room is that it produces a transcript that provides a detailed record of the interaction between client and therapist. However, once this record is saved, others may access the record if other safety measures are not in place (Finn, 2002; Mallen et al., 2005; Ragusea & VandeCreek, 2003). To ensure the safe keeping of personal information, transcripts can be digitally stored on a computer not connected to the internet (Ragusea & VandeCreek, 2003). Still, this is not a completely secure method of storing confidential information and therefore poses specific risks for clients and therapists.

Video-conferencing allows online therapists and their clients to actually see and hear each other during therapy sessions via a camera and microphone attached to the computer with high-speed internet connection (Mallen, 2005). Once the appropriate hardware is installed, users follow the same instructions as mentioned above to use the application. While this form of online therapy provision is superior for client identity, it

has the most potential for security risks, as there are limited video-conferencing software programs that protect the confidentiality of the therapy sessions (Ragusea & VandeCreek, 2003).

Online counselling competencies. Some research suggests that FtF counselling skills do not automatically transfer to the online counselling environment (Alleman, 2002, Ragusea & VandeCreek, 2003). In 2006, Fenichel et al. (2006) recognized the need to explicitly identify skills thought to facilitate a more transparent, natural online relationship between client and therapist. The resulting list of practical and emotional skills (although not necessarily counselling skills) that online practitioners should possess (see Table 2) are believed necessary for open communication, understanding, and empathy between online clients and therapists (Fenichel et al., 2006). Essentially, it is not enough for therapists to have well-developed keyboard skills; they must also have a good grasp of language and appropriate attitudes to be able to elicit, express, and accurately reflect their clients situation (Fenichel et al., 2006).

Table 2
Required Therapist Skills for Effective Online Communication
Practical Skills 1. Fast or touch-typing 2. Comfort with Internet modalities and software programs (e.g.,IM, chat, email, downloading the latest browser) 3. Curiosity and courage to investigate and alter parts of your computer you might not normally bother with (e.g. adjusting the configuration, adding hardware, etc.) 4. Comfort responding swiftly when necessary (or tolerating delays between messages)

5. Ability to accumulate, store, and use appropriate web links

6. Ability to receive, store, and protect communications from clients

7. Knowledge of encryption and other privacy technology

8. Expressive writing, facility with both language and other available visual cues

9. Training/expertise as a mental health professional, with a theoretical base to draw upon

Emotional Skills

1. Comfort describing own and others' feelings in text

2. Comfort in a text-only environment

3. Ability to make effective therapeutic interventions using only text

4. Awareness of how client perceives therapist online

5. Skill at clarifying accuracy of online communication

6. Love of being online

7. Experience with online relationships (synchronous and non-synchronous)

8. Flexibility in approach and conceptualization of therapeutic relationships

   (e.g., believing it's possible to form therapeutic relationships without visual cues or

    employing traditional psychodynamic, frameworks, concepts, and techniques

9. Confidence with technology and role as online authority

10. Tolerance for computer glitch

11. Ability to move between modalities (virtual and f2f) in response to client need and

    circumstances

(Adapted from Fenichel et al., 2006)

      While there is limited research on these or other specific online counselling skills

required to be an effective online therapist, Trepal et al. (2007) identified three online

counselling skills specific to effective synchronous chat-room communication: the use of focused questions, reflective responses, and session closure techniques. First, it is suggested that online counsellors keep the focus of the sessions to one specific topic by asking a limited number of questions. Due to the text-based nature of chat-room communication, the pace of this type of online session needs to be slower than that in FtF counselling to allow online chat-room clients the time to fully process and write their responses to aid in deepening the understanding of the presenting concern (Trepal et al., 2007).

Second, the use of reflective responses by a therapist in FtF counselling adds depth to the client's presenting concern (Hiebert, 2001). Because of the lack of visual and physical cues in chat-room communication sessions, it is essential for online therapists to use descriptive responses that reflect content, emotion, and meaning of their concern. Doing so allows the therapist to convey, and the client to confirm, his or her understanding of the presenting problem, as well as to build a positive therapeutic alliance (Trepal et al., 2007).

Finally, online therapists must signal the end of the counselling session clearly. In addition to providing a written ten- minute warning to the client so that the client may process any remaining concerns and the therapist may summarize the session, it is suggested that online therapists place an end-note that reads "*End of Session*" so that the client can sign off at the same time as the therapist (Trepal et al., 2007). Placing an end-note after the session is important because it ends the current conversation thread and defers further communication between client and therapist to the next online session.

In an effort to enhance the perception of physical presence online, some online therapists encourage the use of *emotional bracketing* as a written strategy to describe in brackets what clients are experiencing, emotionally and physically, while responding to therapists questions (Manhal-Baugus, 2001). It is believed that writing descriptively encourages clients to not only express their feelings but also to reflect on what they mean while enhancing the client's understanding of the physiological aspects of their thoughts in the present moment (Manhal-Baugus, 2001). Emotional bracketing may also create the perception of actual FtF presence online as the client and therapist describe their physical environment, as well as the emotional and physical responses occurring in the session (Suler, 2001). However, emotional bracketing requires that clients have the skills available to identify their felt experience, something that many clients seeking therapy do not always possess.

Acquiring therapist competencies for online therapy. There is consensus in the literature that training therapists to provide online therapy is best begun at the graduate school level (Alleman, 2002; Edwards, Portman, & Bethea, 2002; Finn, 2002). To this end, the counsellor competencies suggested in Tables 1 and 2 can be utilized in several ways. For example, counsellor education programs may use them to develop program goals for students (Edwards et al., 2002; Myers & Gibson, 1999). As well, practicing therapists may use them to self-assess their need for skill training prior to launching their online therapy service (Edwards et al., 2002). Overall, empirically validated specialized competency profiles may inform the training and ongoing continuing education of a new generation of counsellors to effectively deliver online therapy in this ever-changing world of communication technology and increasing client need.

Shibusawa, VanEsselytn, and Oppenhiem (2006) developed "Third Space", a computer-mediated training environment, to facilitate supervision and online discussion of the key skills needed for online counselling for master's students in a clinical social work program. Through Third Space, students were able to videotape their practice scenarios and post them on a modified electronic bulletin board for the rest of the class to view and comment on. The program allowed students the opportunity to practice using web-cameras, chat-room set-up and dialogue, as well cutting and pasting clips of the video into their discussion forum to highlight certain skills. The Third Space program saved these role-plays as teaching tools for future classes. Students involved with Third Space reported that the program helped improve general counselling skills while also improving technology skills necessary to providing online therapy. Despite some challenges, the Third Space program is one example of how advanced technology can be used in training programs to enhance technology-based skills needed for online therapy provision.

The Campus Alberta Applied Psychology Program: Counselling Initiative (CAAP), another example of a graduate level training program using advanced communication technology, was developed in 2001 as a collaborative venture between three western Canada universities (University of Athabasca, University of Calgary, and the University of Lethbridge). The online program was designed to specifically meet the needs of people with a bachelor's degree who already work in the counselling field and who chose not to attend a residential graduate program (Collins & Perry, 2005). Students log onto a central website to access their courses, a digital library, and to perform other practical functions (i.e., pay fees, registration). Online courses typically include web-

based activities involving digital discussion forums, student presentation forums, assignment drop-boxes, chat-room sessions, email, and audio-video functions (Collins & Perry, 2005). There are also two summer institutes for courses that require FtF instruction.

An evaluation of the first two program years indicated that the web-based learning tools students felt were most effective included (in order of priority): the discussion forums, digital library services, email, online student presentations forums, and chat-rooms (Collins & Perry, 2005). The initial program did suffer from some mismatches between the student and the web-based learning approach, which points out the need to select students who are comfortable with and have the skills required to learn in an online environment (Collins & Perry, 2005). Overall, students indicated that the program design suited their learning needs and advanced their knowledge and understanding regarding web-based learning and its influence on counselling skills (Collins & Perry, 2005).

In conclusion, since most graduate students in counselling psychology and related helping professions today are not being adequately trained to use computer-mediated technology in their practice, a number of researchers suggest including computer based practice courses at the graduate level to ensure that therapists learn these skills prior to practicing online (Alleman, 2002; Edwards et al., 2002; Finn, 2002). There is consensus in the literature that supports making specialized computer courses mandatory in the first year of graduate studies, as well as continuously evaluating and monitoring these skills to ensure that counselling professionals are up-to-date in computer applications (Cabaniss, 2002; Edwards et al., 2002; Finn, 2002).

Screening Clients for Online Therapy

While there is limited research on the topic of assessing client suitability for online therapy, it seems clear that some form of client screening is necessary because the level and kind of care required by the client must match the service delivered. The available literature on assessing suitability points to the lack of standardized severity cut-off scores for online clients and difficulties with assessing client suitability for online therapy in general.

The lack of standardized severity cut-off scores. Most research studies used valid and reliable assessment tools to assess and select potential study candidates based on the severity of either anxiety or depressive symptoms in potential online therapy candidates (Carlbring et al., 2005; Kenardy et al., 2003; Klein et al., 2005; Proudfoot et al., 2004; Spence et al., 2006). However, because not all researchers used the same assessment tools, it is difficult to isolate an exact cut-off score guideline for selecting clients for online versus FtF treatment. That said, most online participant scores fell in the mild to moderate range of anxiety or depressive orders although one study indicated that the program used was effective at all levels of severity for anxiety (Proudfoot et al., 2004).

Assessing client suitability for online therapy. Consistent within the literature is the position that high-risk suicidal clients, serious substance abusers, or clients suffering from psychosis require FtF therapy (Alleman, 2002; Mallen et al., 2005; Ragusea & VandeCreek, 2003). Assessing clients online for these kinds of serious issues is not feasible as online therapists can not fully evaluate (i.e., using all their senses) a client's physical behaviour and the client may not provide accurate verbal or written information regarding these difficulties (Suler, 2001). Additionally, the online environment may

exacerbate some clients' difficulty with separating reality from non-reality, since the therapist is not physically present to help orient the client to the here and now (Stofle, 2001 as cited in Alleman, 2002). On the other hand, online therapy may be beneficial for clients who do not require immediate crisis support, whose primary need is for psycho-educational information, and whose presenting concerns can be managed in a step-by-step fashion (Proudfoot, 2004; Griffiths, 2001).

Suler (2001) co-facilitated a clinical case-study group with other online therapists in an effort to develop guidelines for assessing the suitability of online clients in general. *Suitability* was defined as "the person's preferences regarding online therapy, how suggestible the person is within a particular communication modality, his or her skills in communicating within that modality, and the potentially therapeutic aspects of that modality for the person" (p. 675). This group suggested that assessing suitability for online therapy should begin with a general inquiry about the client's comfort level and familiarity with computers and be guided by the client's preference with various computer applications (e.g., email, chat-room, and videoconferencing). To gain an understanding of the client's current mental health status, assessment questions should cover: the presenting concern and pre-existing diagnosis including current medications (dose and frequency as some medications may affect a person's mental and physical functioning thus, potentially influencing their motivation and ability to utilize online therapy), and previous counselling experiences as these may influence their expectations of online counselling making it important to address the differences in online therapy compared to FtF therapy (Suler, 2001).

Initially, online therapists are encouraged to utilize the method of communication most favoured by the client and move toward combining methods of online communication such as email, chat-room, and video-conferencing. Using the different communication modalities during the assessment phase "may yield more comprehensive and qualitatively different information about the client's personality and behaviours" (Suler, 2001, p. 676) and may inform and maximize the treatment benefits.

Dealing with Client Emergencies Online

During times of client crisis it can be challenging for FtF therapists to find a balance between maintaining client confidentiality and acting in the best interest of their clients' safety. Online therapists are faced with an added challenge of doing this with clients who may refuse to identify who or where they are (Robson & Robson, 2000). Mallen et al. (2005) suggest that all clients receive contact information about their local emergency services as a proactive measure. Childress (2000) adds that online therapists discuss a crisis plan with their clients in the initial session so that therapists can help immediately if and when it is needed (ISMHO, 2000; Standard 6, NBCC, 2005). If a client refuses to give information that allows the online therapist to do this, the therapist must make a choice whether or not to extend services to the client based on Standards I.18, I.24, II.17, II.21, and III.14 in the CPA's (2001) code of ethics.

Palouf (1997) proposed that it is possible for online therapists to manage a client in crisis online by following the modified FtF agency-based crisis intervention process of: problem identification, conceptualizing the problem, establishing goals or what needs to happen next, and follow-up (see Appendix D). Palauf adds that while email crisis intervention is a time-limited goal-oriented conversation between therapist and client

meant to help the client return to their pre-crisis state of stability, this time-lapse may hinder timely response to a client's immediate needs and make external localized referrals for online clients challenging.

Summary

Online therapists are held to the same ethical standards as their FtF counterparts in terms of providing ethically sound services for their clients. However, due to the nature of the internet, there are some unique ethical challenges that online therapists face that may impact a therapists decision to use the internet as a viable tool for service delivery. To help minimize the risk and maximize the benefits for both online therapists and their clients, most professional counselling organizations have created ethical guidelines regarding online practice. As technology and research advances, graduate and continuing training in the use of these technologies is a proactive way to meet the demand for competent online therapists.

Conclusion

Anxiety and depressive disorders take an emotional and financial toll on the people suffering from these disorders, as well as on the larger health care system (CMHA, 2006). The prevalence of these disorders means that there is an increased demand for effective treatment services for these disorders. As technology advances, the internet may prove to be a valuable tool for meeting this demand for certain client groups.

The research revealed three key themes regarding the current understanding of online therapy for anxiety and depressive disorders. First, CBT is the most commonly used theoretical and practice approach for online therapy programs for treating these disorders as these therapy programs have benefited from the success of traditional FtF

CBT in the treatment of anxiety and depressive disorders. The second theme revealed that studies on the effectiveness of online treatment programs for these disorders have several serious research concerns that must be addressed in order for the evidence of the effectiveness of online therapy to be substantiated. The third theme concerned the unique ethical issues that exist regarding delivering therapy online including: ensuring client confidentiality online, legal liability issues, obtaining valid informed consent, having accurate screening processes, and managing client emergencies online.

As the practice of online therapy continues to grow, professional counselling organizations have recognized the potential viability as well as the limitations of the use of the internet to delivery therapy online and subsequently developed guidelines and practice standards to assist those interested in providing online therapy to practice ethically. Therapists interested in delivering therapy online must first familiarize themselves with these codes of ethics and then acquire the competencies necessary to ethically deliver this kind of therapy.

CHAPTER 3: DISCUSSION OF ADVANTAGES AND LIMITATIONS

OF ONLINE THERAPY FOR ANXIETY AND DEPRESSIVE DISORDERS

The purpose of this project was to answer the question: What is the current status of treating anxiety and depressive disorders online? The result of the examination of current research literature regarding this topic revealed the three key themes described throughout the paper as well as more general aspects of online therapy that add to the current understanding of treating anxiety and depressive disorders online. This chapter discusses the current literature in terms of the advantages and limitations of online therapy delivery for anxiety and depressive disorders.

Advantages of Online Therapy for Anxiety and Depressive Disorders

It seems clear that the internet as a viable means of service deliver therapy is gaining popularity not only with clients seeking therapy, but with therapists interested in expanding their current FtF practice. As the internet continues to be used in the treatment of anxiety and depressive disorders, a preliminary understanding is emerging in terms of the benefits of offering clients treatment via this mode of therapy including: accessibility to therapy and general cost-effectiveness.

Accessibility to Therapy

Overall, the most common advantage of online therapy cited in the research literature is the accessibility to therapy. The research suggests that clients suffering from anxiety and depressive disorders appreciate the accessibility of online treatment for a variety of reasons including: the reduced fear of societal stigmatization that may accompany a FtF visit to a therapist; the immediacy of support, as clients can email their therapists at any time without having to wait for a scheduled appointment; and the sense

that therapy occurs in the here and now when symptoms are present (Berger et al., 2005; Kaltenhaler et al., 2004; NBCC, 2005; Proudfoot, 2004; Ragusea & VandeCreek, 2003; Robson & Robson, 2000; Shaw & Shaw, 2006; Shepherd & Edelmann, 2005; Skinner & Zack, 2004). Accessible treatment was cited by research study participants who indicated that easy access to the program and to a therapist was an advantage of the online treatment conditions (Carlbring et al., 2005; Kenardy et al., 2003; Klein et al., 2005; MacKinnon et al., 2008).

Cost-Effectiveness

Anxiety and depressive disorders can incur huge financial costs for society, as well as for clients with these disorders. Several of the reviewed articles describe the reduced cost of conducting therapy online as an advantage of this mode of service delivery (Carlbring et al., 2005; Griffith & Christensen, 2006; Proudfoot, 2004). While there is limited empirical research regarding the cost-effectiveness of online therapy, preliminary findings indicate that online therapy services have the potential to be less costly than comparable traditional FtF therapy services primarily due to the reduced therapist-client interaction time required (McCrone, et al., 2004).

McCrone and associates (2004) compared the cost of a nine-step computerized CBT treatment program for depression called *Beating the Blues* (BtB) to FtF treatment as usual (TAU) for people with depression administered by a General Practitioner. A total of 274 participants were screened and randomized into the BtB or TAU conditions. The FtF treatment included any (or all) of the following: medication (if suggested by the General Practitioner), discussions with the General Practitioner regarding the problem, provision of practical and social help if needed by the patient, and/or referral to a counsellor,

practice nurse, or mental health professional (e.g., psychologist, psychiatrist, community psychiatric nurse). Participants in the BtB program could also receive medication (if suggested by the General Practitioner) as well as general help and support (from a practice nurse) but were not referred to any type of FtF therapy. Participants in both conditions completed assessments at five intervals: pre- and post-treatment, and follow-up at one, three, and six months.

Cost-analyses were calculated on net-benefit approach based on a unit reduction in the Beck Depression Inventory (BDI). Data for both conditions was collected on the number of contacts with mental health staff, primary care staff, hospital services, in-home support, physiotherapists, dieticians, as well as dose and course of medication (McCrone et al., 2004). The research findings indicated that the computerized treatment group used less outpatient clinic time, reported more depression-free days (as indicated on the BDI pre-and post-treatment), and had less lost-employment days than the TAU group suggesting that the BtB program has the potential of being more cost-effective treatment for depression than the traditional treatment protocol for depression for clients appropriate for online delivery (McCrone et al., 2004).

McCrone et al. (2007) found that computer-aided behaviour therapy for obsessive-compulsive disorder (OCD) may be more cost-effective than a comparable FtF therapy condition. The researchers randomized participants into one of three possible treatment conditions: a computer-guided exposure and ritual prevention (ERP) program called BTSteps-ERP, FtF clinician-guided ERP, and a self-guided relaxation training control group. The BTSteps-ERP program is a nine-step computerized program covering psycho-educational information about OCD, assessments, and exposure activities.

Participants in the BTSteps-ERP program reported their progress to researchers via a computerized phone call-in system. Research participants in the FtF clinician-guided ERP had 11 one-hour in-person sessions with a therapist (the specific elements of the program were not indicated in the reviewed article, thus it was unclear if this group received identical material as the BTSteps-ERP intervention), and the control group received relaxation instructions via a manual and audiotapes.

Outcome was based on a reduction in scores on the Yale-Brown Obsessive-Compulsive Scale. Costs were calculated based on an incremental cost-effectiveness ratio where the ratio of cost-to-outcome is calculated, and a net-benefit analysis where the monetary value of a unit of improvement in outcome multiplied by the total improvement exceeds costs incurred (McCrone et al., 2007). The calculated cost of one unit of improvement when comparing BTSteps-ERP to FtF clinician-guided ERP was $75 CDN and $250 CDN respectively. The findings suggest that BTSteps-ERP proved to be less costly than clinician-guided treatment (McCrone et al., 2007). While participants in both treatment groups showed a significant improvement in symptoms as compared to the control group, the clinician-guided ERP group showed a significantly lower decline in Yale-Brown Obsessive-Compulsive Scale scores from pre-post-test over the BTSteps-ERP. However, in terms of cost-effectiveness, the potential of BTSteps-ERP to reach more clients and the fact those clients showed a decline in their symptoms (albeit not to the same extent as the clinician-guided treatment group), points to this online program as a more cost-effective treatment alternative for people with OCD than traditional FtF clinician-guided ERP therapy (McCrone et al., 2007).

Limitations of Online Therapy for Anxiety and Depressive Disorders

While there is a growing body of research that claims to provide support for the effectiveness of online treatment in the reduction of anxiety and depressive disorders, there are some significant concerns that may call these benefits into question including: completion rates, potential communication barriers, potential financial barriers, and ethical concerns.

Completion Rates

Completion rates in some of the studies seemed to be effected by the length of the program and the amount of therapist interaction. Carlbring et al. (2005) found that completion rates were significantly different for an internet-only treatment group (28%) compared to an FtF therapist-guided group (88%). The internet-only group indicated that while access to the program and the ability to complete the modules at their convenience was an advantage, the pace of the modules was too fast to complete them all in the 10-week timeframe. Carlbring and his colleagues (2005) hypothesized that email-only contact may not be powerful enough to increase program completion and suggest that perhaps weekly telephone contact with a therapist may improve completion rates.

Griffiths and Christensen (2007) indicated that most visitors to MoodGYM did not complete the entire 10-week program and hypothesized that this was due to minimal therapist contact as indicated in client feedback surveys. In Kenardy et al. (2003), study participants reported difficulty tolerating exposure therapy exercises without more therapist guidance leading to incomplete modules, which in turn, adversely affected the completion rate. MacKinnon et al. (2008) noted that their study participants required

several telephone calls from a therapist to remind them to complete post-treatment assessments.

Potential Communication Barriers

Some researchers felt that the lack of visual and audio cues in text-based communication hinders therapists' ability to interpret clients' responses (Carlbring & Andersson, 2006; Finn, 2002; Proudfoot, 2004; Shaw & Shaw, 2006). This potential limitation demonstrates the need for online therapists to develop specific counselling competencies that address these communication barriers (see Table 2). For instance, therapists could modify the use of questions, use reflective statements, and ensure that a closing statement is made to signal the end of the session as suggested by Trepal et al. (2007). Also, therapists may use descriptive language (i.e., as in emotional bracketing) to help enhance their physical presence online (Manhal-Baugus, 2001; Suler, 2001).

Potential Financial Barriers

There are some necessary costs incurred for the purchase of communication technologies and the required protection software that may pose a financial barrier for both therapists and clients. For example, many researchers suggest that both the online client and therapist use encryption software to enhance online confidentiality and protect client privacy (Alleman, 2002; Heinlen et al., 2003; Ragusea & VandeCreek, 2003). The cost of this software can range from free to several thousands dollars depending on its features (Ragusea & VandeCreek, 2003). Therefore, it is possible that some online clients may resort to less secure methods of online communication that jeopardizes their online security (Alleman, 2002; Mallen et al., 2005). Video-conferencing also requires high-speed computer internet access and broadband or cable connection in order for the most

optimal video transmission. The cost of these services may also deter clients (and perhaps some therapists) from using such a medium.

Ethical Concerns

The current research literature revealed several important ethical concerns associated with online therapy that prompted the development of online ethical practice guidelines by professional counselling organizations. Despite the best efforts of these organizations to outline the necessary requirements for online ethical practice, a significant number of current online therapy websites fall short of even the suggested website information guidelines. Heinlen et al. (2003) found that 36% of the 44 therapy-based websites they surveyed failed to provide links to therapists' credentials. Perhaps the most alarming issue that Heinlen and her colleagues reported was the instability of the websites themselves – many websites, when revisited 13-months later, were no longer operational. Although Heinlen et al. posited that it was possible that therapists made other arrangements for their clients to keep in contact or recommended other online therapy services prior to closing down the website, there is no way of knowing if this was done and what the repercussions were for their clients. Thus, it is possible that if therapy websites are not following ethical protocol, then other ethical guidelines also may not be being met.

Summary

As the internet develops, a more comprehensive perspective of offering services online is emerging. This chapter summarizes the current understanding of treating anxiety and depressive disorders online in terms of the advantages and limitations of online service delivery. In general, the advantages include: ease of accessible treatment and the

reduced cost of service delivery. However, the disadvantages include: high client drop-out rates, the need for therapists to have specialized competencies prior to engaging with clients, the fact that some clients may see the costs for the required equipment and software as a barrier to service, and non-compliance with ethical practice guidelines. Overall, while the internet seems to provide some advantages for the delivery of therapy services to some clients, there are also significant limitations that exist to offering therapy online.

CHAPTER 4: METHODS AND PROCEDURES

This chapter describes the steps taken in the development and completion of this project. Discussions include: how the topic was selected, how the literature review was conducted, and how the recommendations for therapists interested in conducting therapy online for anxiety and depression disorder were developed.

Topic Selection

The possibility of an alternative treatment delivery system for people who suffer from anxiety and depressive disorders was a launching point for this project. Given that the internet is widely accessible to the general public, it seemed appropriate to explore the potential of the internet in the treatment of these disorders. The result was an extensive literature review that focused on examining the current status of treating anxiety and depressive disorders in an online environment.

Conducting the Literature Review

The article selection criteria used to search for the research literature for this project was Leedy and Ormrod's (2005) guidelines that articles should: (a) be juried, (b) have a stated research question, (c) describe how the research data were collected and analyzed, (d) be logically organized, (e) discuss previous studies on the same topic and how they relate to the current study, (f) contain clearly stated research procedures so that similar results would be evident if the study was replicated, and (g) offer an interpretation of the results with suggestions for further research.

Relevant studies from the years 1990-2008 were found using the aggregated databases "PsychINFO", "Academic Search Premier", and "Psychology and Behavioural Science Collection". The initial search key words were: "internet therapy", "online

therapy", and "cognitive behaviour therapy". To narrow the search further, the key words "anxiety", "depression", and "ethics" were added to the original search words. English-only articles were used.

Once the appropriate literature was collected and reviewed, it revealed three prominent themes: that CBT was the predominate theoretical framework used in online treatment for anxiety and depressive disorders, that studies of online programs proving effectiveness in treating these disorders have several methodological flaws, and that there are specific ethical concerns regarding online therapy treatment services. Overall, this project was summarized in terms of the overall advantages and limitations evident in the current status of treating anxiety and depression online.

<p align="center">Development of the Recommendations for Therapists</p>

The use of advanced communication technologies in delivering therapy is a relatively new development in the therapy field and not many guidelines currently exist for the treatment of mental health disorders online. As such, therapists contemplating the use of these technologies to deliver therapeutic services would benefit from having evidenced-based recommendations regarding this practice. The recommendations in this project were derived from the review of the research literature and subsequent critical analysis of what therapists must know prior to adding online therapy to their FtF therapy services. Recommendations were developed in four steps:

1. Articles were included in the project if they discussed: (a) specific treatments for anxiety or depression online, (b) a theoretical basis for treating anxiety or depression underlying these treatments, and (c) the use of either custom-

designed online programs or modified online versions of FtF manuals used for the treatment of anxiety or depression.

2. After critically analyzing the articles, particular attention was paid to the recommendations and gaps in service delivery as identified by the researchers in the reviewed articles.

3. Conclusions were drawn from the research articles recommendations and the gaps in online service delivery. The result was the research-based recommendations presented in Chapter 5.

4. These recommendations were categorized according to the three themes revealed in the literature and anchored to the relevant ethical principles and guidelines as outlined by the CPA (2006) as well as practice guidelines and principles from other professional organizations including the ACA (2005), ISMHO (2000), and NBCC (2005).

<div align="center">Summary</div>

The current project was an extensive literature review conducted to discover the current status of treating and anxiety and depressive disorders online. Specific selection criteria was used narrow the scope of the articles reviewed for the project and a subsequent critical analysis of the selected research literature formed the basis of the research-based recommendations for therapists contemplating using advanced communication technologies in their therapy practices.

CHAPTER 5: PROJECT SUMMARY AND RECOMMENDATIONS

The objective of this project was to explore the current status of treating anxiety disorders and depressive disorders online with the goal of providing research-based recommendations for therapists considering the use of the internet to expand their current FtF practice. Chapter 2 examines the three relevant themes regarding the treatment of anxiety and depressive disorders online in detail and Chapter 3 summarizes the advantages and limitations of this mode of service delivery. This final chapter presents recommendations for therapists interested in adding online therapy to their FtF practice, concluding with a discussion of the strengths and limitations of the project and directions for future research.

Recommendations for Therapists

The following research-based recommendations for therapists are anchored to relevant aspects of the CPA's (2006), "Ethical Guidelines for Psychologists Providing Psychological Services via Electronic Media" (see Appendix C). In addition, other professional counselling organizations guidelines are cited to either reinforce or add to the CPA's guidelines. They are organized according to the three themes regarding online therapy that emerged in the research literature.

Theme One: CBT as the Predominate Theoretical Framework for Treating Anxiety and

Depressive Disorders Online

1.a. *Online therapists use CBT as the theoretical/practical approach to online treatment for clients with anxiety and depressive disorders*. Given that CBT is an effective therapy approach for the treatment of these disorders in traditional FtF settings and that its strategies transfer well to the online environment, therapists would be prudent

to use this approach with their online clients (Beck & Wieshaar, 2005; Carlbring & Andersson, 2005; Proudfoot, 2004). This recommendation reflects Principle 2, Standard 1 in the CPA's (2006) guidelines in which therapists are responsible for knowing and using appropriate and proven online therapy services.

1.b. *Online therapists utilize empirically researched online treatment programs.* The literature revealed several online treatment programs (e.g., MoodGYM, BluePages, and FearFighter) that have promising effects for clients suffering from anxiety or depressive disorders. As such, it would be prudent for online therapists to familiarize themselves with and utilize these, as well as the empirically researched converted online treatment programs, with their clients (Griffiths & Christensen, 2006). This recommendation is supported by the CPA's (2006) Principle 2, Standard 1 as noted in recommendation 1.a.

1.c. *Online therapists use a blended FtF- online therapy approach with online clients.* A blended approach to online therapy implies that clients interact directly with the therapist by telephone, email, chat-room, video, or FtF sessions (Proudfoot, 2004). It is evident in the research that clients who have received some form of direct interaction with their therapist experience better symptom reduction and completed more treatment modules than those clients who did not have any direct interaction with a therapist (Carlbring et al., 2005; Griffiths & Christensen, 2006; Klein et al., 2005; Mallen, 2005; Proudfoot, 2004). Thus, a certain level of direct client contact is recommended to increase program completion and overall effectiveness. This recommendation is supported by CPA's (2006) practice standards that suggests psychologists use their

discretion to determine the type of communication method that most benefits their clients (Principle II, Standards 3 & 10).

1.d. *Online therapists integrate written communication documents into their treatment protocol with their online clients.* Given that much of the online therapeutic interactions are text-based, online therapists can use these transcripts and other documents (e.g., journals or thought logs) as part of therapeutic process and to track client progress (Trepal et al., 2007). Incorporating this written communication into online therapy sessions may enhance therapeutic discussions as clients may more freely express their thoughts and feelings about their issues in written form (Wright, 2002). In general, the CPA (2006) suggests therapists should use and be knowledgeable about communication strategies that will benefit the client (Principle II, Standard 1).

Theme Two: Enhancing Effectiveness of Online Therapy

2.a. *Online therapists assess client suitability for online therapy.* Given that not all client disorders are suitable for online therapy, screening clients for online therapy is required. This should be done in the client's preferred mode of communication and should be an ongoing process throughout the therapy process (Carlbring & Andersson, 2006; Suler, 2001). Assessing client suitability is consistent with the CPA (2006) guideline advising that psychologists assess the needs of prospective clients prior to beginning any online therapy and that if an in-person assessment is needed, then the necessary arrangements are made to meet this need (Principle II, Standard 3).

2.b. *Online therapists, when acting as scientist practitioners, should evaluate their own practices in a methodologically sound manner.* Given that the current research on effectiveness of online therapy has significant research flaws, it is important that

therapists continue to gather data and assess the validity of the research using empirically sound methods (Carlbring & Andersson, 2006; MacKinnon et al., 2008; Kaltenhaler et al., 2004). This recommendation is supported by Principle II, Standard 1 in the CPA (2006) guidelines that suggests psychologists:

> Keep up to date with the e-service literature, including research literature regarding the efficacy and effectiveness of services using electronic media, and take this literature into consideration when deciding what services to provide to which clients, with what methods, and under which circumstances (CPA, 2006, ¶ 1).

Theme Three: Ethical Concerns Regarding the Delivery of Online Therapy

3.a. *Online therapists must inform their clients of the limitations of confidentiality online.* Online clients need to know the conditions necessary for enhancing confidentiality (i.e., the need to install security software, etc) as well as the risks, benefits, and privacy limitations when communicating online (Heinlen et al., 2003; Ragusea & VandeCreek, 2003). This recommendation is consistent with the assertion that a crucial step in the online therapy process is for therapists to explain the limits of confidentiality to their clients prior to starting any therapeutic activity (Principle I, Standards 4-6, CPA, 2006).

3.b. *Online therapists must educate their clients regarding ways to keep their online communication confidential.* In order for client communications to be kept confidential, clients should know how to protect their online communications with their therapists, including that they need to use a private computer, how to install security software, how to use encryption software to protect text-based therapy sessions, and how

to install computer security software such as firewalls, intruder detection systems, and anti-virus software (Ragusea & VandeCreek, 2003). This recommendation is echoed in Principle I, Standards 4 and 5 in the CPA (2006) and is shared by the ACA (2005) guidelines (e.g., Section A.12.g., 3, 5, and 6).

      3.c. *Online therapists must use appropriate security software to increase the level of online client confidentiality*. Online therapists must use appropriate computer software including firewalls, intruder detection systems, and anti-virus applications, to guard against unsolicited users accessing client-therapist communications (Ragusea & VandeCreek, 2003). To further enhance security, online therapists should use a different computer not connected to the internet to digitally store online client information (Ragusea & VandeCreek, 2003). According to the CPA (2006), "psychologists educate themselves regarding current practices and security devices for electronic communications, and use those systems and practices that are reasonably available, and that best protect their clients' privacy" (Principle I, Standard 4, ¶ 1).

      3.d. *Online therapists must be aware of and not violate jurisdictional boundaries of their professional licensure*. It is essential that therapists know their local professional organizations regulations regarding practice insurance should a grievance be lodged against them from an online client residing in another jurisdiction (Childress, 2000; Recupero & Rainey, 2005). The CPA (2006) states that licensing for online therapists may be required where their clients reside as well as were they practice (Principle III, Standard 3). However, this CPA guideline may be difficult to follow, as the licensure criteria may be different in each province, state, and country.

3.e. *Online therapists must validate informed consent given by their clients.* One of the most common concerns in the literature regarding online therapy is the need for valid informed consent (Alleman, 2002; Heinlen et al., 2003; Ragusea & VandeCreek, 2003). To obtain the essential information, online therapists should prepare and send an informed consent form to potential clients outlining the necessary stipulations (see Appendix B). The ISMHO (2000) supports this guideline and adds that some clients are "not in a position to consent themselves to receive mental health services. In this case, consent should be obtained from a parent, legal guardian, or other authorized party – and the identity of that party should be verified" (Standard 1.g., ¶ 15). Obtaining valid informed consent may be a challenge as some clients may misrepresent themselves or give false information online. The CPA advises that psychologists arrange an in-person contracting session with either the client or a substitute qualified health care practitioner designated by the client to ensure that this informed consent is valid (Principle I, Standard 2, CPA, 2006).

3.f. *Online therapists must obtain consent to work with minors but if they can not, therapists need to fully understand their legal liability.* The perceived anonymity of the internet may draw minors to seek therapeutic services without parental knowledge. Online therapists should obtain parental consent prior to commencing therapy with a minor, but when this is not possible, or if it deemed harmful to the minor client, online therapists must consult with their licensure organizations to understand the possible legal ramifications regarding the issue of providing therapy without consent (Evans, 2004; Myers, 1982). This recommendation is consistent with several counselling organizations

ethics codes (Principle I, Standard 3, CPA, 2006; Principle 1.c., ISMHO, 2000; Standard 2, NBCC, 2005).

3.g. *Online therapists should at minimum, acquire the practice competencies described in Tables 1 and 2 in this project*. It is imperative for online therapists to keep up-to-date in the skills and knowledge required to effectively use online programs, as well as the research regarding these and new programs that become available for client treatment (Alleman, 2002; Ragusea & VandeCreek, 2003). Griffiths and Christensen (2006) suggest that therapists log-on to the online programs as either a client or as a professional to familiarize themselves with the program modules and expectations. This recommendation is supported by Principle II, Standards 1 and 2 that suggests psychologists keep appraised of and utilize those practices that have been proven effective with online clients and only use the practices in which they have demonstrated the competency.

3.h. *Online therapists must have a proactive client emergency plan.* Addressing client emergencies online can pose a challenge for online therapists due to the physical distance between them and the client as well as lack of specific information about the resources available to the client (Alleman, 2002; Palouf, 1997; Ragusea & VandeCreek, 2003). In recognition of the fact that some online clients also choose to remain anonymous, the CPA (2006) created this guideline:

> Prior to beginning e-services, psychologists discuss with clients the procedures to be followed in an emergency. Psychologists collaborate with clients to identify a qualified health care provider (e.g., the family physician) who can provide local

back-up assistance, and to determine the local crisis hotline telephone number and local emergency telephone number. (Principle II, Standard 1, ¶ 7)

To conclude, these recommendations were developed from the most recent research literature on the current status of delivering treatment online using the existing advanced communication technologies. In addition to providing guidance to therapists contemplating adding online service delivery to their FtF practise, they may be used to facilitate discussion of current trends in online therapy where therapists are employed, as well as in professional organizations and counselling agency professional development events.

<div align="center">Strengths of the Project</div>

The project contributes to the existing knowledge regarding the delivery of therapy online for anxiety and depressive disorders by first, offering an well-informed critique of the current research literature, organizing the information into three predominate themes, and finally, synthesizing the research into a set of recommendations for therapists wanting to add online therapy to their practices. Having a thorough understanding of the current status and overall advantages and limitations regarding the practice of online therapy is an important knowledge foundation for therapists contemplating adding online therapy to their practice offerings.

<div align="center">Limitations of the Project</div>

The main limitation of this project is that currently there is not a large body of research literature on this topic and some of the studies of effectiveness have questionable validity due to methodological problems. In addition, due to the evolving nature of advanced communication technology, any analysis of this topic is time limited

and may quickly become out of date. While the therapy programs discussed in the project were groundbreaking at the time, new online treatment programs are developed and new studies of their effectiveness are being published on a continuous basis.

<p style="text-align:center">Directions for Future Research</p>

<p style="text-align:center">*Theme One: Online CBT for Anxiety and Depressive Disorders*</p>

While CBT is appears to be the current theoretical approach of choice for online treatment of anxiety and depressive disorders, further research is needed to explore the potential and effectiveness of other theoretical approaches to in the online treatment for these disorders.

<p style="text-align:center">*Theme Two: Effectiveness of Online Therapy*</p>

First, empirically sound research without the methodological flaws identified in this project is required on both short and long-term effectiveness of the existing online treatment programs. Second, current research indicates that online therapy works best with at least some direct therapist-client interaction. Given this fact, it would be beneficial for practitioners using these programs to know more specifically how much and what kind of interaction with clients is optimal for both client retention and client change. Third, research into the generalizibility of the existing effective online therapy programs across different cultures, ages, and socio-economic backgrounds is important. Most studies reviewed in this project involved participants who were mainly female, Caucasian, and often university students; these traits may not be reflective of the majority of clinically diagnosed anxiety or depression clients.

Theme Three: Ethical Considerations for Online Therapy

While some counselling organizations have developed ethical online practice guidelines, research is needed to address the issue of non-compliance regarding the development of ethical therapy-based websites as well as adherence to other procedures that ensure client confidentiality, grievances, identity verification, informed consent, screening clients, and managing client emergencies online. In terms of therapist competencies, specific technical and counselling skills are required for effective online, as opposed to FtF, therapy. While the current research has identified some specific online technical and counselling skills, it is probable that there are many more that are needed to successfully conduct therapy online.

Summary

The goal of this project was to explore the current status of treating anxiety and depressive disorders online in order to make evidenced-based recommendations for therapists interested in providing this service. The resulting recommendations are organized according to the three main themes revealed in the literature and supported by existing practice guidelines primarily from the CPA (2006). As the use of advanced communication technology to deliver therapy continues to evolve, this project offers an important knowledge foundation to therapists who are currently incorporating online therapy into their range of therapy services for clients with anxiety and depressive disorders.

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Appendix A

Thought Record

(Greenberger & Padesky, 1995)

Situation	Moods	Automatic Thoughts (images)	Evidence that supports the Hot Thought	Evidence that does not support the Hot Thought	Alternative/ Balanced Thoughts	Rate Moods Now

Appendix B

Additional Informed Consent for Online-Counseling Template

(Mallen, Vogel, Rochlen, 2005)

The distance involved in online counseling brings up specific issues in terms of confidentiality and privacy. First, although specific measures have been taken to protect the information that will be communicated between you and your therapist through encryption technology, the privacy and confidentiality of computer-mediated communication cannot be 100% guaranteed. Your therapist will take every measure to safeguard your information, but you should be aware that there is a very small chance that information can be stolen from transmissions between yourself and the therapist.

Second, it is possible that you may save the information discussed in your online counseling session to your computer as a transcript, or print out this transcript to save for your records. If you do decide to save this information, you are encouraged to take steps to ensure that this information remains confidential as your therapist cannot be responsible for the safeguarding of these materials. For instance, another individual could access your computer and view the saved transcripts, or may locate print copies of transcripts from your sessions, which likely contains sensitive material. Please take steps to protect your confidentiality and do not assume that information on your computer is private if others have access to the machine.

Third, because therapists have a duty to warn and to protect if there is an indication that the client is a danger to themselves or others, there is a need for extensive contact information so services can be delivered to you in the case of an emergency. For example, if you demonstrate to your therapist that you have strong intent to harm yourself

or another, your therapist is legally and ethically bound to take action to protect everyone involved. These potential services will be easier to implement if you were attending face-to-face counseling sessions because both you and your therapist would be in the same location. To make the delivery of emergency services more efficient, please provide the following information:

Client Name: _____

Home Address: _____

Home Phone Number:_____

Cell Phone Number: _____

Work Address: _____

Work Phone Number: _____

Primary Physician: _____

Address: _____

Phone: _____

Emergency Contacts

Local Police Department: _____

Phone Number: _____

Appendix C

Ethical Guidelines for Psychologist Providing Psychological Services Via Electronic

Media (CPA, 2006)

Principle I: Respect for the Dignity of Persons

1. When obtaining informed consent for electronic provision of services, psychologists include information about the particular nature, risks (including possible insufficiency, misunderstandings due to lack of visual clues, and technology failure), benefits (including appropriateness and advantages *re* distance, convenience, comfort), reasonable alternative service options (e.g., in-person services, local services from an available health service provider of another discipline), and privacy limitations (including the possibility of interception of communications) of providing services through the particular electronic medium/media to be used.

2. Psychologists providing services to clients for whom capacity to consent or freedom of consent may be an issue, arrange for an in-person contracting session, either with themselves or with another qualified health care practitioner.

3. If a substitute decision maker is needed to provide consent (e.g., a parent), the identity of the substitute decision maker is verified in person, either with themselves or with another qualified health practitioner.

4. Psychologists educate themselves regarding current practices and security devices for electronic communications, and use those systems and practices that are reasonably available, and that best protect their clients' privacy.

5. Psychologists inform clients of their security practices, and reach agreements with clients regarding maximization of security for each client, including whether the client will require any special equipment (e.g., special software) to access and transmit information and, if so, whether the psychologist provides the special equipment as part of the services.

6. In situations where it is difficult to verify the identity of the client being served electronically, steps are taken to address impostor concerns (e.g., by use of identity code words or numbers).

Principle II: Responsible Caring

1. Psychologists keep up to date with the e-service literature, including research literature regarding the efficacy and effectiveness of services using electronic media, and take this literature into consideration when deciding what services to provide to which clients, with what methods, and under which circumstances.

2. Psychologists do not attempt to address a problem using electronic media unless they have demonstrated their competence to do it in in-person services.

3. Psychologists ensure that prospective clients for e-services receive an adequate assessment of their needs. If the type of service being offered requires in-person assessment, psychologists provide such assessment or arrange for another health care provider to conduct the assessment prior to beginning e-services.

4. Psychologists develop e-service plans that are consistent with the client's needs and the limitations of e-services.

5. The client's record includes hard copies of all online communications of a material nature, and notes regarding contacts of a material nature using other electronic media.

6. Prior to beginning e-service, the psychologist obtains from the client the name and phone number(s) of someone for the psychologist to contact in an emergency.

7. Prior to beginning e-services, psychologists discuss with clients the procedures to be followed in an emergency. Psychologists collaborate with clients to identify a qualified health care provider (e.g., the family physician) who can provide local back-up assistance, and to determine the local crisis hotline telephone number and local emergency telephone numbers.

8. Psychologists make adequate plans for accessing and responding to messages left by clients in electronic form during times of psychologists' unavailability, illness, or incapacity.

9. Psychologists inform clients of alternative communication procedures if there is a technology failure.

10. If a client is receiving only e-services (i.e.,, not combined with any in-person services), and it becomes evident that the client would receive significantly greater benefit from in-person services, and such services are available, psychologists provide in-person services or refer the client to a qualified professional who can provide such service.

Principle III: Integrity in Relationships

1. Psychologists set appropriate boundaries with clients regarding their availability.

2. Psychologists ensure that the possible convenience and financial advantages of providing e-services are never allowed to outweigh the best interests of clients.

3. Psychologists inform themselves of jurisdictional requirements regarding licensure or certification, and are licensed or certified in any jurisdiction that requires licensure or certification of psychologists providing e-services to persons who reside in that jurisdiction. This may include being licensed or certified both in a client's home jurisdiction, as well as being licensed or certified in the psychologist's own home jurisdiction.

Principle IV: Responsibility to Society

1. To prevent the loss of security of assessment techniques, psychologists do not administer electronically any psychological tests for which such administration would put the security of the assessment techniques at risk or would violate any copyright restrictions.

2. Psychologists obtain, where feasible, liability insurance coverage for their e-services

3. Psychologists provide to clients relevant contact information (e.g., mailing address, phone number, fax number, Website address, and/or e-mail address) of all appropriate certification/regulatory bodies.

4. Psychologists familiarize themselves with and honour the relevant laws and regulations of all jurisdictions to which they provide e-services. This includes such matters as age of consent or definitions of capacity to consent, and requirements for mandatory reporting.

Appendix D

Comparison between Email Crisis Intervention and Agency-Based Crisis Intervention

(Adapted from Palouf, 1997)

Aspect	E-mail Crisis Intervention	Traditional Agency-Based Crisis Intervention
Presenting Problem	Problem is framed during initial messages as a disruption in otherwise steady state	Problem is defined in everyday terms. Problem is conceptualized as a time-limited phenomena with either adaptive or dysfunctional outcomes
Referral Source	Self-referral	Primarily allied health professionals: MDs, clergy, hospitals, human services agencies, EAPs
Underlying Theory and Therapeutic Orientation	Primarily personality theory (psychoanalytic, ego psychology, cognitive and learning theory)	Same
DSM IV Diagnosis	Important, but not used due to need to accomplish problem-solving tasks	Same
Psychosocial Assessment	Same as traditional approach, but slightly more difficult due to nature of medium	Systematic but brief assessment of the nature of problem, individual's coping skills and

		general adaptive abilities, availability of family, friends and community resources. Extensive history-taking is not part of treatment principles
Initial Phase	Explore problem and reframe in cognitive terms, instill hope, allow ventilation. Therapist will usually offer tentative hypothesis on the nature of the problem and the client's dynamics. Treatment plan is constructed early with emphasis on time-limits	Same
Treatment Principles	Client is encouraged to maintain a sense of autonomy, contract of goals is established, and time frame for treatment is discussed and agreed upon. Clients are helped to find solutions based on their own internal skills, directive advice and coaching are not used	Same
Treatment Goal	Relief of symptoms, restoration of functioning, insight into stressors,	Same

	increased repertoire of problem solving skills	
Termination	Part of Treatment Contract. New problems involve new treatment contract. Termination is seen as critical component to promoting client autonomy	Same
Follow-up	Must be client initiated	Usually client initiated
Appointment Times	Usually, therapist is available more than once a week. Often several sessions per week until problem is resolved	Several per week, tapering off towards termination
Self-disclosure	Varies, but web sites often include the therapist's treatment philosophies, resumes, and professional interests	Usually limited by agency rules
Setting	Almost entirely private practice	Almost entirely agency based
Professional Qualifications	Unregulated	Usually agency-based state licensure and certification. Therapists comply with state and local regulations. Usually practice is supervised
Payment	Self-pay, some therapists offer free	Usually free to clients by third-

	services	party, grant, local assistance, host agency (i.e.,, hospital, university), sometimes self-pay
External Referrals	Difficult due to medium	Occasional, given geographic closeness of agency to clients