Online Cognitive Behavioral Therapy for the Prevention and Treatment of Depression and Anxiety in Children and Adolescents: A Review

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CERTIFICATE OF APPROVAL

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This is to certify that the Capstone Project of

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Abstract

According to research, online cognitive behavioral therapy (CBT) can be effectual in the treatment of depression and anxiety in adults. The effectiveness of the use of online CBT with adolescents is not clear. The aim of this literature review is to appraise the effectiveness of online CBT for the deterrence and treatment of depression and anxiety in adolescents. Eight online CBT software programs were discovered and reported on in this search. Though the literature is currently limited, preliminary findings indicate online CBT is an acceptable intervention for this age group. The need for additional online CBT trials with adolescents is supported. A section pertaining to implications is included.

Contents

Introduction

A plethora of studies have documented the high prevalence of emotional problems in adolescents. Depressive disorders are very common in school age children and depression is usually under diagnosed and under treated in youth. Tomb and Hunter discovered that by the age of nineteen, 28% of adolescents experience an episode of major depression or anxiety (2004). Costello, Erkanli, and Angold (2006) found that by age sixteen 9.5% of adolescents will experience a depressive disorder. Cost and colleagues (2006) concluded that at any one time 2.8% of individuals under and age of thirteen suffer from depression.

The onset of depression that befalls adolescence or young adulthood can negatively influence future functioning and has a 60 – 70% chance of continuing into adulthood (Weller & Weller, 2000). Cuijpers (2003) found that the physical, social and psychological changes individuals experience during adolescence act to heighten adolescent vulnerability to depressive symptomatology. Hence, the treatment and prevention of depressive disorders and symptoms in youth and young adults are both important ambitions.

Cognitive-Behavior Therapy (CBT) has been suggested to prevent depression in adolescence by providing an individual with the tools to deal with and the ability to interpret negative life events (Andrews & Wilkinson, 2002). Albert Ellis (1962) linked depression in children to negative thoughts and maladaptive cognitive styles. The utilization of his theory has in part spurred an effort within the past decade to create CBT based depression prevention programs that reach a large number of youth and can be delivered by school psychologists, teachers, parents, or counselors during or after school. Given that schools are taking on increasing responsibility for the diagnosis, treatment, and prevention of mental health problems

in young people (Miller, DuPaul, & Lutz, 2002), the goal is to find a low cost way to reach as many students as possible with easy to use universal interventions.

The ambition to make CBT more assessable to adolescents has lead to the creation of at least eight online CBT software packages. The eight online CBT programs located during the research process of this review include the following: Stressbusters, Beating the Blues, Master your mood online, MoodGYM, CATCH IT, Cool Teens, E-Coach and BRAVE Online. A majority of studies found reported reductions in symptoms and improvements in behavior, self-esteem, and cognitions (Richardson, Stallard, & Velleman, 2010). For the purpose of this review, the focus will be on effectiveness of MoodGYM.

The earliest documentation of online therapy was from the University of Nebraska when in the 1950s a two-way closed-circuit television system was used in psychiatry (Wittson & Benschoter, 1972). Estimates of the current total of online therapy programs currently in the United States are possible from several sources, but it is difficult to determine the number of online therapy programs serving children and adolescents. In 2005, 116 online counseling programs were identified and many, although an unknown number, of these programs include child and adolescents services (Brown, 2006).

The literature examining online therapy with children and adolescents is small but growing. In a descriptive study suggesting that the same disorders can be diagnosed and treated with either online therapy or traditional face-to-face therapy, 159 youths referred to online therapy were clinically and demographically equivalent to those referred to in-person treatment (Meyers, Sulzbacher & Melzer, 2004). Most studies concerning online therapy with adolescents and children measure satisfaction and have found that providers and families are satisfied with online therapy (Meyer, Valentine & Melzer, 2008). This implies successful treatment but does

not necessarily equate to efficacy (Williams, May & Esmail, 2001). To be of value, online therapy must demonstrate the ability to provide evidence-based care that produces outcomes superior to those that adolescents can receive through traditional care.

Review of Literature

Theoretical Aspects of Online Therapy

Anthony and Nagel (2010) state there are three major theoretical orientations that work well online: psychodynamic, humanistic, and cognitive behavioral. The arena of focused interventions and evidence-based approaches, including brief solution-focused therapy, motivational interviewing, and bibliotherapy, seem to be well suited for online delivery. Brief approaches that focus on problem solving can be easily adapted to text-based therapy. Additionally, psycho-education methods are adaptable to online work.

The approach focused on here is cognitive behavioral therapy or CBT. The keystone of CBT is that by reframing how one perceives an event, one can make that event seem less traumatic or disturbing (Beck, 1979). The concept of homework in CBT corroborates that the client is putting what is learned in therapy into practice. Homework used in traditional face-to-face CBT, such as writing assignments and self-monitoring using written ABC forms (A = activating event, B = beliefs about that event, C = consequences) to challenge negative assumptions, seem ideally suited for asynchronous online work (Beck, 1979). Modeling, another strategy for users of CBT, can be supplied as a podcast or streamed from a website (Anthony & Nagel, 2010).

Online CBT

Research has shown that brief CBT depression prevention programs for high-risk adolescents produce clinically meaningful and long-lasting effects (Stice, Wade, Rohde, & Gau, 2010). Reduced risk for future depressive episodes and reductions in initial depressive symptoms within the adolescents who participated in CBT provide evidence that the prevalence of depression maybe reduced through prevention (Stice et al., 2002). Evidence of this nature has

led to CBT emerging as an inexpensive method of reducing depression in many populations, including adolescents.

Though anxiety and depression are common among youth, access to CBT is not widely available (Andrews, Cuijpers, Craske, McEvoy, & Titov, 2010). Essau and colleagues (2002) found very few adolescents with significant mental health disorders receive treatment from mental health professionals. Internet and computer based delivery formats could improve access to CBT, especially for clients without access to mental health care or for those who resist seeking out mental health services for a variety of reasons. Anthony and Nagal state that CBT "is often seen as ideally suited to online work, because the nature of it as being a focused and more direct way of working – often essential when working online" (2010, p. 22). Because CBT is highly structured, it is easily adapted to an online format (Kenardy & Adams, 1993). Ease of use and anonymity are two benefits of online therapy identified by parents of adolescents with mental health problems (Stallard et al., 2010).

Technological alternatives to traditional therapy may attract more new clients. The online disinhibition effect (Anthony & Nagal, 2010) often means that more distressing or uncomfortable issues come up much earlier and more easily for the client than would in traditional therapy settings. Though this can certainly be seen as one of the concerns with online therapy, it could also be used as a tool in brief counseling with youth or other individuals who do not or cannot adhere to costs and demands of face-to-face treatment. The suggestion could be made that the use of technology makes it easier to reach individuals who hold a stigma toward seeking help from mental health professionals or are unfamiliar with the process (Anthony & Nagal, 2010). Young (2005) found most online therapy users are new to psychotherapy and are looking for anonymity and convenience.

The goal here is to consider the effectiveness of efforts that have been made to date to use online CBT interventions to decrease depressive symptoms and relieve anxiety. A meta-analysis by Andrews and colleagues (2010) concluded that computerized CBT for anxiety and depressive disorders via the Internet has the capacity to provide effective, acceptable, and practical health care for those who might otherwise remain untreated. Five studies comparing computerized CBT with traditional face-to-face CBT found both modes to be equally beneficial with maintenance of gains at follow-up and good patient adherence (Andrews, Cuijpers, Craske, McEvoy, & Titov, 2010).

Another study suggests only a small difference between online therapy interventions and self-help accessed from static information found on the Internet. Clarke, Kelleher, Hornbrook, Debar, Dicherson, and Guillion (2009) note a small but significant difference in self-report depression assessment between young adults that received an Internet delivered CBT skills training program and those who were linked to an HMO website that provided information about depression. The female participants in this study report a more promising moderate effect response from the Internet CBT program (Clarke et al., 2009).

The computer-aided CBT program, "Beating the Blues," was found to be an acceptable treatment for common mental health problems in routine care (Cavanagh et al., 2009). Of individuals who had received previous therapy for episodes of anxiety, depression, or stress surveyed, 80% report that Beating the Blues was as good as or better than their previous treatment experience (Cavanagh et al., 2009). Online CBT provides a practical, helpful, and satisfactory treatment alternative for patients, who are unwilling or unable to seek traditional forms of mental healthcare and further implementation of online CBT is endorsed for a variety of

common mental health disorders including depression, panic disorder, posttraumatic stress, and burnout (Ruwaard, Lange, Schrieken, Dolan, Emmelkamp, 2012).

Despite the lack of face-to-face contact, Ruwaard and colleagues (2009) found that participants receiving therapist-guided web-based CBT were highly satisfied with the treatment and large clinically relevant improvements in depression, anxiety and well-being in adults with chronic symptoms of mild to moderate depression were made. Contrary to what might be expected by a seasoned counselor, the working alliance between client and counselor in online CBT was found to be comparable to that of face-to-face therapy situations (Preschl, Maercker, & Wagner, 2011). Evidence suggests that the gold standards of a good face-to-face client to counselor relationship, like establishing good rapport, can be facilitated in online therapy (Adlington, 2010).

Online delivery of CBT for adolescent anxiety, with minimal therapist support, is as equivalently efficacious as clinic-based CBT, indicating that online therapy is a credible alternative that boosts accessibility and diminishes therapist time commitment (Spence et al., 2011). Twelve-month follow up outcomes are similar to those for clinic-based CBT and online CBT is regarded as a highly credible approach by both parents and adolescents. Both online and clinic-based CBT produce improvement in overall functioning and significant reduction in clinician-rated anxiety (Spence et al., 2011). Online CBT may epitomize one way in which a larger number of anxious adolescents can be helped (Spence et al., 2011).

Though much has been written pertaining to use with adults, the use of online therapy for the treatment of adolescents is not well documented. Given that adolescents have been found to be more competent at using computers, this is surprising (Cuijpers et al., 2008). The popularity of social media and personal devices like smart phones and tablets is indicative of the fact many

young people find support from their peers online (Fukkink, 2011). Assuming that access to the Internet rests in one's hand, one's pants pocket, or in one's purse and is available at all times, perhaps online therapy is the new frontier for person-centered social support and problem solving approaches.

MoodGYM (www.moodgym.anu.edu.au) is a free online, self-directed cognitive-behavioral therapy program, authored and developed by Helen Christensen and Kathleen M. Griffiths. The program is designed to prevent and reduce the symptoms of anxiety and depression in individuals aged sixteen to twenty-five years. The MoodGYM program attempts to change dysfunctional thoughts and beliefs, teach important life skills, and improve interpersonal relationships and self-esteem. The program consists of five interactive modules designed to be completed in a set order. Each module contains information, animated demonstrations, quizzes, and homework exercises. Anxiety and depression quizzes are completed at the beginning of each module and at the end of the program and recorded in the user's personal workbook, which can be accessed at any time (Christensen & Griffiths, 2001).

MoodGYM has been found to significantly lower levels of anxiety in adolescent school based populations and reduce depressive symptoms in adolescent males, suggesting support for use as a universal prevention program in schools (Calear, Christensen, Mackinnon, Griffiths, & O'Kearney, 2009). Strongest effects were observed at six-month follow-up, suggesting that participants may need to pass through a period of elevated risk before the full prevention effects of the MoodGYM program are realized. Also, only one third of the students in the trial completed all five modules of the program and it may be necessary to complete all five to gain significant benefit of the intervention (Calear et al., 2009).

Another study that addressed the effectiveness of MoodGYM for the treatment of depressive symptoms in male youth found similar methodological obstacles in participants' completion of the five modules. Although O'Kearney, Gibson, Christensen and Griffiths (2006) were unable to detect the relative degree of change that would be necessary in concluding that MoodGYM was an effective school-based program, only about 40% of the participants completed half or more of the modules, significantly reducing the study's power of detecting effectiveness. While the numbers were small, there was a 17% reduction in the vulnerability to depression in the MoodGYM group compared to the control, but this reduction was not sustained at follow-up (O'Kearney, Gibson, Christensen, & Griffiths, 2006).

Previous studies involving self-initiated users or individuals with high scores on a psychological distress scale who were directed weekly by telephone to use MoodGYM yielded more positive results (Griffiths et al. 2004). The adolescents in the O'Kearney, Gibson, Christensen, and Griffiths (2006) trial did not self-initiate access to the intervention and were not necessarily in distress. In part this disparity between the two trials may be an expected dosage-related effect (O'Kearney, Gibson, Christensen, & Griffiths, 2006).

Users of the MoodGYM website are likely to have better psychological outcomes if more of the site material is completed, as completion of core sections drive assessment completion (Christensen, Griffiths, Groves, & Korten, 2005). Users of MoodGYM are more likely to have lower depression post intervention if they are female, have lower initial assessment scores, and complete more module assessments, which suggests the importance of adherence and retention. Studies show that less than 7% of MoodGYM users progress beyond the first two modules (Christensen, Griffiths, Groves, & Korten, 2005). Male adolescents are less inclined to complete online CBT than are their female peers (Neil et al., 2009).

Carr (2007) insinuates there is increasing evidence of the effectiveness of CBT in the treatment of depression in young people and that these positive effects arise predominantly from changes in depressive cognitive distortions. Recovery rates for youth receiving CBT are reported to be 94%, with a 60% remission rate compared to those who received other forms of therapy (Weersing & Brent, 2003). However, significant differences between the outcomes of CBT, family therapy, and supportive therapy at two-year follow-up were not substantiated (Weersing & Brent, 2003).

In addition to the effectiveness of CBT found in the treatment of adolescent depression (Klien et al., 2007), CBT has also been shown to be effective in the treatment of adolescent social anxiety (Hubert et al., 2009), posttraumatic stress disorder (Smith et al., 2007), and obsessive-compulsive disorder (Valderhaug et al., 2007). Though Knaevelsrud and Maercker (2006) found that a working alliance with a counselor could be established effectively online, adolescents have been found to be skeptical about taking part in online CBT (Stallard et al., 2010). Maintaining adolescent engagement is difficult when piloting online CBT and attrition is high in a majority of the studies conducted to date (Richardson, Stallard, & Velleman, 2010). Unfortunately, adolescents with higher levels of depressive symptoms tend to complete fewer sessions (Gerrits et al., 2007). Increased contact with a counselor during online CBT has been found to improve outcomes in therapy with adolescents (Hicks et al., 2006). With the inconsistency of the available results, the level of support from a counselor an individual would need to maximize the effectiveness of online CBT is not clear.

As previously mentioned, males tend to be less likely to adhere to online programs for depression. A controlled trial utilizing MoodGYM with adolescent females found low rates of completion to be a problem (O'Kearney et al., 2009). In this trial, approximately 70% of the

adolescent females in the MoodGYM group completed less than three of its modules and completion of fewer modules was related to high depression scores before intervention (O'Kearney et al., 2009). Negative cognitions relating to failure, helplessness, and powerlessness may be more difficult to restructure through online CBT therapy due to limited counselor contact (Richardson, Stallard, & Velleman, 2010). This raises the question of how much of on an online CBT program needs to be completed to produce an effect. That being said, the results did show that MoodGYM did produce a significantly faster rate of decline in self-reported depressive symptoms than the control group (Richardson, Stallard, & Velleman, 2010).

CBT has been cast as a rather highly structured therapy, which has led to the assertion that it is ideally suited for online therapy. A study examining strategies to encourage involvement in CBT for adolescent depression found less structure in the first session promoted involvement in early and mid-treatment tasks (Jungbluth & Shirk, 2009). Greater exploration of motivation, lower structure, and higher levels of attending to the adolescent's experience were all associated with greater involvement in core cognitive tasks (Jungbluth & Shirk, 2009). It appears when treating adolescents, eliciting more about the client's motivation and experience coupled with a limited introduction to new concepts during the initial session of therapy set the stage for greater disclosure and involvement in later sessions. The question as to whether online CBT programs can respond to this information is raised.

There may be tributary benefits of using CBT to treat depression in adolescents. A study by Rohde and colleagues (2012) found secondary benefit of reducing the normative escalation of substance use over time in adolescents who have subclinical depressive symptoms. It has been suggested that brief CBT aimed at decreasing and preventing depression has the added benefit of

suspending or preventing the onset of substance use in adolescents who are at elevated risk for substance use disorders (Rohde et al., 2012).

We live in a multicultural world, therefore best clinical practice and evidence-based treatment for mental health issues must be able to be culturally adapted. The ability for CBT to maintain fidelity to a treatment protocol while allowing for considerable flexibility to address the patient's preferences, social context, and values has been illustrated. Duarte-Velez and colleagues (2010) found CBT use with a male homosexual Latino adolescent enabled identity formation and integration, and promoted personal acceptance and active questioning of homophobic thoughts in a climate of family respect. The use of CBT in this specific case resulted in remission of the patient's depression and better family outcomes (Duarte-Velez, Bernal, & Bonilla, 2010).

Essential Skills and Considerations of Online Therapy

When considering online therapy one should think in terms of the skills of both the client and the therapist. A therapist must assess the client's match for online therapy while considering the setting they are most comfortable working in. Regardless of the method of online therapy used, practical skills necessary for a therapist to possess as indicated by Anthony and Nagel (2010) include:

- Quick or touch typing skills
- Comfort with Internet tools such as downloading programs or using various platforms and software
- Basic computer skills such as adjusting setting, configurations or adding hardware
- Tolerance of the need for swift response to clients or delays in responses from clients

- Ability to accumulate, store and easily retrieve web links
- Ability to receive, store and protect communication from clients
- Utilization of encryption
- Expressive writing skills
- Therapist training and a theoretical background to draw on.

The emotional skills necessary for an online therapist to possess as listed by Anthony and Nagel (2010) include the following:

- Comfort in describing one's own and other's feelings with text
- Comfort with a text-only environment
- Awareness of how the client may perceive the therapist online
- Skills at clarifying online communication when necessary
- Desire to be online
- Experience with online relationships through synchronous and asynchronous methods
- Belief that relationships online via text can be meaningful and therapeutic
- Confidence with technology and tolerance for computer glitches
- Ability to use various methods of delivery (face-to-face, chat, email, etc.) depending on the needs of the client
- Ability to handle a wide range of client emotions as expressed in client text.

Clients must hold basic skills to ensure online therapy is effective and beneficial. Practical considerations include comfort with technology, accessibility, and typing ability. Individuals considering participating in online therapy must be able to express emotion through

text and possess written language skills. Clients of online therapy should be free of cognitive or physical issues, including learning disorders and mental health issues that could impact the client's ability to read and write. It would be unethical to consider clients for online therapy if they lack the skills, abilities, and the desire to work in an online setting (Anthony & Nagel, 2010).

Anthony and Nagel (2010) outline a subset of skills needed for effective online counseling based on skills associated with empathic listening as describe by Pickering (1986). Anthony and Nagel discuss how these essential skills occur within text-based therapy. The first of these is attending and acknowledging the client by using text to confirm that the therapist is listening. The therapist might do this by immediately responding to a text message, acknowledging receipt. The second of these essential skills is restating and paraphrasing. In the case of online therapy, written language is used to reflect feelings, experiences, or content as perceived by the therapist (Anthony & Nagel, 2010).

Summarizing and synthesizing are important skills for online therapists to have, especially in asynchronous email settings. Given that a client is not in the room with a therapist it is vital a therapist can provide focus for a client through text. Work online requires the ability to effectively probe for more information or to clear up confusion. "Asking questions is a critical part of building the therapeutic alliance and gaining information to further assist the client" (Anthony & Nagel, 2010, p. 29). Giving feedback is accomplished by email or chat in which the therapist offers in response to the client's email or chat insight-orientated statements or questions to the client (Anthony & Nagel, 2010).

Supporting, or showing warmth and caring, looks very differently online than in person. Anthony and Nagel (2010) suggest a therapist might utilize emotional bracketing, such as

[smiling], to express physical aspects of communicating emotion and body language in to text dialogue. Therapist might offer a hug conveyed as (((client's name))), use an acronym like LOL, or an emoticon (Anthony & Nagel, 2010). Given that the potential for misunderstanding is greater in text based online therapy, checking perceptions is also a very important skill for the online therapist (Anthony & Nagel, 2010).

Finally, the skill of being quiet is described as giving the client time to think as well as to type. The process of communicating via text often propels the client to reflect more deeply than they would if they were engaged in a verbal face-to-face conversation. For some the process of putting thoughts into text will require time as some clients will wish to write, review and edit thoughts. This should be concerned both when waiting for response and when giving a response. Therapists should consider advising a client to submit shorter chunks of information or just allowing stream of consciousness responses if that type of response is more appropriate for the work being done. Also, therapists should consider that the client might analyze and scrutinize the therapist's words before responding. It is important the therapist take the time to consider how the client might interpret what he/she is saying (Anthony & Nagel, 2010).

An important consideration of online therapy is the disinhibition effect. The online disinhibition effect is a term that describes the occurrence of more distressing or uncomfortable issues being brought up by the client earlier in online work than would be in face-to-face sessions. "The practitioner may find they are struggling with this information before they really know the client and are able to feel that the unconditional positive regard is inherently in place. This process is crucial to the effectiveness of the therapeutic process – if one is not able to keep the reassurance of understanding and regard in place, the client will feel that they have gone too far" (Anthony & Nagel, 2010, p. 16).

Suler (2004) defines online disinhibition effect as ways a person behaves on the Internet with less restraint that in face-to-face situation. Suler summarizes six effects of online disinhibition. These are outline briefly using Suler's term here:

1) Dissociative anonymity - When online people only know what you choose to tell them, and people have the opportunity to separate their actions from their real identity. This might lead people to feel less vulnerable about opening up and to feel less need to be accountable for their actions.

2) Invisibility – The opportunity to be physically invisible amplifies the disinhibition effect and gives people the courage to go places and do things that they otherwise would not.

3) Asynchronicity – In some forms of online therapy, people do not interact in real time and not having to deal with another's immediate reaction can be disinhibiting. Some might view asynchronous communication as safer in that clients can remove themselves from the situation after posting a message that is personal, emotional, or hostile.

4) Egoistic self-absorption – Similar to how one hears a character when reading a book, reading another person's message might be experienced as a voice within one's head. "Online text communication can become the psychological tapestry in which a person's mind weave fantasy role-plays, usually unconsciously and with considerable disinhibition" (Anthony & Nagel, 2010, p. 36)

5) Dissociative imagination – One might feel the imaginary character, false persona, or selective/exaggerated version of their identity created online exists in a different realm altogether, leading one to believe what happens in make-believe worlds online have

nothing to do with reality. Once one turns his/her computer off one can leave his/her online identity behind.

6) Minimizing authority – Status may not have as much impact in online work as it does in face-to-face settings. One might be reluctant to say what he/she really thinks in person if he/she views that therapist as an authority figure. This effect seems to be minimized online (Suler, 2004).

Many personality factors may cause a person to seek online therapy services, including but not limited to issues related to power, control, authority, dissociation, manipulation and delusion. If there is not a practitioner in the client's community, a client might seek specialized services online. For some people, lack of transportation and/or geographical area might be an issue that prevents them from seeking face-to-face therapy. Time management, flexibility, cost, and convenience are yet other reasons people seek services online (Anthony & Nagel, 2010).

Ethics

Rightly so, how to work ethically online has been a topic of much debate. In an ephemeral space with no physical limits and numerous technological elements to contend with, maintaining and ensuring confidentiality is a major concern. Many mental health disciplines, including the American Counseling Association, have developed or revised Codes of Ethics that incorporate the use of technology. The Online Therapy Institute's Wiki has a comprehensive list of up-to-date guidelines and ethical codes relevant to mental health and technology (Anthony & Nagel, 2009). A set of standards of practice for online counseling is available through the International Society for Mental Health Online (ISMHO) and are available on the web (http://www.ismho.org).

There are many issues unique to online therapy with children and adolescents. The American Academy of Child and Adolescent Psychiatry or AACP has developed practice parameters pertaining to the use of online therapy to provide services to children and adolescents. These parameters have been developed to help clinicians make decisions and serve to determine best practices within online therapy (Journal of American Academy of Child and Adolescent Psychiatry, 2008). The following is a summary of the fourteen principles of the AACP practice parameter for online therapy with children and adolescents.

Principle 1: The need for child and adolescent mental health services and whether online therapy is an option for meeting that need should be determined. Before providing service, determine whether online therapy is needed, feasible, and sustainable. Review existing mental health services. Advantages and disadvantages of providing serves online should be considered for both the client and the provider.

Principle 2: The sustainability of the online therapy service should be determined. Online therapy is affected by cost beyond those of usual practice. Costs of the technology, infrastructure, payment mechanisms, and equipment at both sites will need to be determined.

Principle 3: The patient population, the model of health service delivery, and services to be offered should be determined. Considering online therapy will not be the best fit for all clients, inclusion and exclusion criteria should be established. Services to be delivered must be determined. Resources at the client's site should be thoroughly assessed before treatment begins, including the site's ability to attend to acutely suicidal clients. Ideally, professionals utilizing online therapy will have an appropriate backup at the client's site. Protocols should be in place to manage emergencies, set criteria for hospitalization, and determine the therapist's role within the continuum of services.

Principle 4: The infrastructure needed to support the services should be determined. HIPAA compliance must be ensured. Infrastructure support will be needed ranging from considerable if personnel are needed to assist in providing assessments or collaborating in managing crisis to minimum support if the patient site can rely on coordination with local providers.

Principle 5: Legal and regulatory issues should be determined. Regulatory issues at the local, state, and national level must be addressed. Many states require the provider to be licensed in both the state where the therapist is and the state where the patient receives services. Specific state laws should be checked and HIPAA regulations must be followed.

Principle 6: Management strategies for the online services should be established. Protocols should identify specific steps to deal with equipment failure, an important issue unique to working online. Procedures should also be in place to deal with scheduling, cancelled appointments, referring, and maintaining records.

Principle 7: Appropriate equipment and technological specifications should be determined. Depending on the type of online work being done, equipment include cameras, microphones, speakers, and computers with hardware and software to facilitate online therapy need to be secured at both sites. Due to the rapid changes in online communication and the decreasing cost of both technology and Internet access, it is important to consider the most current options when choosing equipment and method. The American Telemedicine Association website has further information on technology and venders (www.atmeda.org).

Principle 8: Quality and clinical outcome indicators should be developed. Best practice in online therapy is safeguarded by establishing an evidence base and quality improvement guidelines. Satisfaction ratings, although not a measure of efficacy, indicate acceptability of

online therapy and help to direct program development. Clinical outcome indicators, including functional assessments and disorder-specific scales, can provide efficacy data.

Principle 9: Rapport, confidence, and collaboration with the patient's guardians and mental health staff at the patient site should be fostered. It is imperative that patient's legal guardian have confidence in the online therapist, even if they never meet in person. Communication between therapist and patient guardian is a must. A relationship with mental health providers at the patient site is necessary to an adequate contingency plan, as restated in other AACP principles.

Principle 10: Informed consent and assent procedures should be established. Informed consent should consist of the patient and the legal guardian having a basic understanding of and agreeing to the specific use of online therapy in treatment. During scheduling, families should be informed that their appointment or session will be conducted online so that parents can prepare the patient with an age-appropriate explanation. Allowing the youths to see the equipment and its operation before the formal session may be of help in ensuring the patient comfort with the procedure.

Principle 11: The physical setting should be arranged, and the virtual relationship should be established to produce an optimal clinical encounter. The patient's site for online therapy might very well be their home, or they might utilize a community space like a room within a school. Regardless of the space used by the patient, the room at the patient site should provide appropriate privacy. This space might need to be large enough to include the youth and a parent, depending on the goals and content of the session. If video is being used, lighting is crucial. All of these considerations should be studied before formal session begins to ensure the quality of the clinical encounter.

In online therapy, communication is more deliberate and animated to overcome obstructions to perception that might occur. The virtual relationship depends on the therapist screen presence. Verbalizations must be more deliberate and clear than in person because of the slight delay of visual, auditory, or text transmission with could comprise the fluidity of conversation. Rapport in online therapy must be established within a space that does not physically exist and, generally within the literature, little attention has been paid to how this lack of physical presence affects the relationship.

Principle 12: It should be determined whether the youth can be interviewed alone; if not, potential alternative means to conduct a mental status examination should be identified. The ideal patient for online therapy will have good impulse control and adequate verbal and writing skills. Online therapy maybe contraindicated for developmentally impaired, impulsive, and younger patients. The truth is that online therapy will not best serve every client and this is an import ethical consideration to weight before treatment begins.

Principle 13: Procedures for prescribing medications should be established. This would apply if the clinical providing online therapy were a psychiatrist.

Principle 14: Families should be informed about procedures for care between online therapy sessions, including procedures for emergency or urgent care. Information about access to care between online sessions is vital to families receiving online therapy. As stated previously, communication between the therapist and guardian is critical. Agreements for alternative care should be clearly shared with all involved to limit the occurrences of avoidable emergencies and confusion for families.

Implications

Many individuals currently utilize online therapy. The Center for Medicare and Medicaid Services (CMS) considers the use of telecommunications systems to provide individual psychotherapy, consultations, and diagnostic interview examinations to be eligible for reimbursement if delivered by eligible providers, including clinical psychologists and clinical social workers (CMS, 2012). Although many insurance policies cover online therapy, a lack of uniform, consistent and equitable reimbursement for online therapy services creates a significant barrier to providing the service.

In Minnesota, there is no state law addressing private insurance reimbursement for online therapy. Fourteen other states have enacted legislation to address this issue. Many of the state's largest insurers are showing growing interest in reimbursing providers for online therapy. This trend signals positive changes in the private insurance reimbursement environment for the future (Minnesota Department of Health, 2010).

Online therapy is not a fad nor is it the next best thing in mental health care. Technology is increasingly extending into work, home, family, and community life accompanied by significant benefits and challenges. Online therapy does not appear to be poised for a takeover of psychotherapy, general counseling, marital, couple and family counseling, or other forms of helping consumers address mental health and wellness issues. Even so, as another delivery system and a special application of counseling, the online method of providing psychological and emotional care is here to stay.

A quick Internet search using any browser will quickly reveal the demand for online therapy by adolescents. This is evident in the number of online resources, programs, and sites marketed towards adolescents. Given that adolescents seek this type of mental health service;

effort should be made to help them find good sources of ethical therapy online. The unfortunate truth is that there is currently a sea of garbage out there in cyber space that should be avoided.

Ethical online therapy starts with appropriate consent secured from a known individual. No therapist worth his or her salt would consider working with clients online before verifying who they are, securing consent, and verifying their diagnosis. As school counselors, the responsibility to guide our clients, the students attending our school, to credible sources of mental health services online is implied. If online therapy or counseling is sought, there is an obligation to help clients find good sources. Because school counselors have access to the students in need of mental health services, they are in a position to start an online therapeutic relationship with individuals who are known to them.

There are a number of undeniable benefits to utilizing online therapy that have been identified by the Minnesota Department of Health's Rural Health Advisory Committee's Report on Telemental Health in Rural Minnesota, published in July of 2010. The first of these benefits recognized by the Minnesota Department of Mental Health (MDH) is increased access to mental health services. All mental health procedures that are delivered in person can be delivered remotely via online therapy. This provides a means for combating geographic limitations, or the young client's inability to drive.

Another benefit of online therapy is simply increased diagnosis. As previously stated, many individuals who currently utilize online therapy likely would have not sought treatment if that required treatment in a traditional clinical setting. Treatment yields better outcomes. Earlier intermediation and easier access helps patients engage in their care and, ultimately, this will improve mental health outcomes and save health care costs (MDH, 2010).

Online therapy is a cost-effective delivery of mental health services. Other probable cost savings arise from reduced wait times and a reduction of no-show rates. Costs are decreased overall for patients, providers and health systems, even after including start-up costs for the compulsory equipment and technology infrastructure (MDH, 2010).

Lastly, online therapy provides an opportunity for improved coordination of care. As the integration of primary care and mental health continues, more mental health professionals are providing peer consultation to family practice physicians, especially in rural Minnesota. Patients often discuss their mental health concerns with their primary care physician first, especially in cases involving adolescents and children (MDH, 2010). Online therapy creates an opportunity to engage additional mental health providers.

Mental disorders, like anxiety and depression, are common in adolescents, yet many do not seek the help of mental health professionals. Psychiatric labels have been ascribed to stigmatizing beliefs and consequently inhibit seeking help (Wright, Jorm, & Mackinnon, 2011). In a survey of 2,802 people aged 12 to 25 years, Wright and colleagues found that a vast majority of those interviewed held a belief that individuals assigned a mental illness diagnosis label were weak rather than sick (Wright, Jorm, & Mackinnon, 2011). This suggests that in many young minds, the idea of seeking counseling services is incredibly unattractive. Many youth might be inclined to go to great lengths to hide their need for help.

The problem this creates for school counselors is twofold. It is possible that identifying students who need mental health services causes harm. To avoid the harm that might be done by labeling a student as someone who needs a counselor, student confidentiality must be guaranteed. The unfortunate truth within the social bubble that school can be is that it is often very difficult for students to seek the help of a school counselor without classmates, coaches, and

teachers finding out. Second, the current atmosphere and culture that young people live in discourages youth from seeking and help they need. The privacy and anonymity that online therapy affords users alleviates both of those issues. The argument could be made that online therapy is the best way to reach the adolescent population due to the resistance to seek help they demonstrate and the stigma toward mental health counseling they hold.

In addition to the high prevalence of depression and anxiety in adolescent populations, school counselors are often called upon to deal with the issue of cyber-bullying and sexting. Many adolescents consider their world online to be as real and as important to their social lives as their daily lives and school (Bauman, 2011). The fact that a large number of people are privy to the humiliation of the victim makes both cyberbullying and sexting extremely harmful. The potential for online therapy in addressing these two issues is considerable but under-researched.

Victims of cyberbullying or sexting mishaps tend to remain silent because it is hard for the embarrassed or betrayed teen to seek help from his or her school counselor or parent knowing that the adult might be offended or angered by the information or photos involved in the incident. The anonymity and concealment of online therapy offers a safe and appropriate alternative. The potential for online therapy to be readily available to these technology savvy individuals is an added benefit. A lot can be said for a counselor's ability to meet a client in an environment the client has experience with and is comfortable.

Perpetrators of cyberbullying and individuals who engage in sexting might also be best served by online counseling. Disinhibitition, in all of it forms, draws young people into activities they normally would not engage in. It can feel as though there are no consequences due to the anonymous nature of the Internet and the inability to see the negative effects immediately or first hand. Every counselor knows the microskill of immediacy to be a powerful tool for increasing

client self-awareness and fostering behavior change. The argument could be made that online therapy provides the unique opportunity for therapists and counselors to challenge the disinhibition felt by clients online while in the immediacy of experience.

Given the preventative approach of educational initiatives, school counselors are called to be proactive in dealing with these two issues of our virtual reality. The opportunity to utilize online therapy modalities to provide psychoeducation is enormous, and greatly underutilized by school counselors as a whole. Online psychoeducation pertaining to Internet safety and identity protection could be made available to an entire school district for very little cost. This education could be extended to parents in an attempt to help them understand how to help cyberbullying targets and how to establish safeguards for their own children.

Online counseling is becoming another acceptable, expected method of offering mental health services that all counselors will need some basic level of competence with, and some will need to become experts in. The potential for online therapy in the work with adolescents is great and its implications are foreseeable. Within this lies an opportunity for school counselors, especial those who work with adolescents, to greatly expand the services they are able to offer with minimal additional cost and time requirements. Online therapy is a valuable tool that is currently underdeveloped by the school counseling profession.

Conclusion

Preliminary evidence suggests online CBT is an acceptable and effective intervention for depression in adolescents. However, the literature is currently inadequate and additional randomized controlled trials are necessitated. The literature found for this purpose included several limitations, the most common of which was sample size. There may have been research projects in this area, which did not find positive results and consequently were not published, which raise the concern of possible publication bias. Future studies using randomized controlled trials comparing online CBT with traditional face-to-face CBT are needed to understand the usefulness of this intervention with adolescents. The possible effects of variables such as gender and level of pre-intervention symptoms also need to be weighed. The level of support needed when working with adolescents, attrition rate, the impact of content, and length and number of sessions required needs to be explored. With the goal of developing an intervention for depression and anxiety in adolescents that is effective and easily accessible in mind, the potential for online CBT to be incorporated into clinical practice needs to be examined.

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