ONLINE COUNSELING: ATTITUDES AND POTENTIAL UTILIZATION BY COLLEGE STUDENTS

HUMBOLDT STATE UNIVERSITY

By

Chloe Brown

A Thesis

Presented to

The Faculty of Humboldt State University

In Partial Fulfillment

Of the Requirements for the Degree

Masters of Arts in Psychology

Counseling

May 2012

ONLINE COUNSELING: ATTITUDES AND POTENTIAL UTILIZATION BY COLLEGE STUDENTS

HUMBOLDT STATE UNIVERSITY

By

Chloe Brown

Approved by the Master's Thesis Committee:

Dr. Lizabeth Eckerd, Committee Chair	Date
Dr. Jennifer Sanford, Committee Member	Date
Dr. Tasha Howe, Committee Member	Date
Dr. Emily Sommerman, Graduate Coordinator	Date
Dr. Jená Burges, Vice Provost	Date

ABSTRACT

ONLINE COUNSELING: ATTITUDES AND POTENTIAL UTILIZATION BY COLLEGE STUDENTS

Chloe Brown

Student needs at college counseling centers are outpacing current resources. Key organizations such as the American Psychological Association and the California higher public education systems have emphasized the importance of incorporating technological advances into current practice standards. This study explored college students' knowledge of and interest in online counseling as well as provided useful information for colleges interested in offering online services. College students (N = 119) completed the Attitudes Toward Seeking Psychological Help-Short Form, the Online Counseling Attitudes Scale, the Face-to-Face Counseling Attitudes Scale, and questionnaires developed by the researchers. The majority of the sample was female (71.4%, n = 85), White (62.2%, n = 74), aged 18-25 (83.2%, n = 99), and had declared a social sciences major (63.0%, n = 75). Results demonstrated promising student interest with 28.9% of participants stating they had utilized online counseling and 64.4% endorsing online counseling as a good alternative for their mental health needs. Most participants (77.3%) said they would agree to provide relevant contact information for a crisis. As expected, perceived value of face-to-face counseling correlated with general help-seeking attitudes

$r(119) = .498$, $p < .01$. Interestingly, a small but significant correlation was also found between general help-seeking behavior and online counseling attitudes, $r(119) = .177$, $p = .001$. Gender differences consistent with counseling literature emerged for face-to-face but not online counseling; females reported more favorable general help-seeking $t(117) = 3.362$, $p = .001$, and perceived value of face-to-face counseling $t(117) = 2.295$, $p = .024$, attitudes. Differential results for face-to-face and online counseling suggest that students perceive online counseling differently and that it may be useful for college counseling centers to provide education about the two forms of therapy. For example, to increase the familiarity of online psychological support, an online counseling seminar could be incorporated into new student orientation with additional tutorials found on the college counseling center website. In conclusion, the substantial student interest in online counseling suggests that different will not necessarily deter people from utilizing online support and that online counseling may be a worthwhile endeavor for college counseling centers to seriously consider as a way to meet at least some student demands.

ACKNOWLEDGMENTS

To begin, I would like to thank my advisor, Dr. Beth Eckerd for her continual support, guidance, and faith in my abilities throughout this entire process. I could not have accomplished this project without you! I am also grateful to my committee members Dr. Jennifer Sanford and Dr. Tasha Howe for their helpful feedback and flexibility in meeting. Two other key players in this project were my undergraduate assistants Vanessa and Colleen who contributed to the formulation of the hypotheses, data collection and presentation of the finding at the Western Psychological Association 2012 Conference. I hope it was a valuable experience and encourages them to conduct their own research in the future. Thank you to my colleagues, Anabel, Bill, Fritzie, Francis, Jen, and Joey for your friendship and contribution to my development as a therapist. To my housemate Nicole, thank you for your words of encouragement as I got ready to sit down at my computer and tackle my next thesis draft. Lastly, I would like to express my love and appreciation to my family and friends. Thank you for your endless patience, love, and guidance as I continue to find my way in life.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER ONE

INTRODUCTION

Research increasingly suggests that the prevalence and severity of problems reported by college students seeking counseling services are on the rise (Benton, Robertson, Tseng, Newton, & Benton, 2003; Mowbray et al., 2006). According to Mowbray et al. (2006), approximately 12-18% of students on college campuses currently have a diagnosable mental illness. A recent annual survey of college counseling center directors (N = 320) noted a 70.6% increase in crisis issues over the past five years requiring immediate assistance, a 45.7% increase in alcohol abuse, a 24.3% increase in students with an eating disorder, and a 39.4% increase in cases involving self-injury (Gallagher, 2010). Furthermore, the onset of several psychological disorders including Major Depressive Disorder, Bipolar Disorder, and Schizophrenia often occur late in adolescence and early adulthood right as individuals are beginning college (Chisholm, 1998). With the effectiveness of new psychiatric medications and the continued assistance of mental health supportive services, many of these individuals are now able to continue their education. Unfortunately, many university counseling centers also report limited resources to adequately support individuals with these more severe conditions (Storrie, Ahern, & Tuckett, 2010).

In the state of California, the four-year public higher education system is not immune to these national trends. Extensive systemwide research at both the University

of California (UC) and California State University (CSU) systems indicate that students are reporting mental health issues with greater frequency and complexity. For example, data collected from three recent academic years (2005-06, 2007-08, and 2008-09) indicate that the number of students seen at the college counseling centers on twelve CSU campuses (only 12 out of the 23 CSU campuses maintained data) increased by 16.5% with only a 7.6% increase in enrollment during the same time period (California State University Select Committee on Mental Health, 2010). Student services including counseling services have also been affected by severe budget cuts resulting in longer student wait-times, difficulty retaining staff, and decreased services and programs within both university systems. In the UC system, students who do not identify themselves as in imminent crisis must often wait three to six weeks to see a counselor (University of California Office of the President, 2006).

To meet the needs of students seeking counseling services, the roles, functions, and standards of college counseling centers are continually changing. The UC and CSU systems have worked creatively to adequately address increasing student demand through crisis management teams, campus-wide collaborations (e.g., training for faculty and staff), and student wellness campaigns. UC campuses have committed to a multiyear plan of increased funding for student mental health services by increasing student registration fees, resulting in an $8 million funding increase for the 2008-09 academic year (University of California, University Affairs, 2008). In June 2007, voter approved Proposition 63 supported a four-year initiative to expand suicide and violence-prevention programs for public schools with approximately $34 million allocated for universities

(University of California, University Affairs, 2008). Adapting to the rapidly changing collegiate environment has now also prompted the UC and CSU systems along with national organizations such as the American Psychological Association (APA) to explore alternatives to the traditional 50 minute face-to-face (f2f) session. In a final report by the Select Committee on Mental Health, the CSU system made the following statement:

> By necessity, college counseling is slowly reinventing itself. Key in this transformation is the use of technology (e.g., on line social networking sites and prevention efforts), increased data and outcome measurement via technological advances, greater collaboration with Academic Affairs, and more innovative models of service delivery and referral. (California State University Select Committee on Mental Health, 2010, p. 46)

A potential alternative delivery method with significant relevance at the college level is online counseling. The college population uses online and media communication extensively, and the majority of students either have no insurance or are limited in their ability to afford healthcare services (Khasanshina, Wolf, Emerson, & Stachura, 2008; Proudfoot et al., 2009; Richards, 2009).

In the private sector and at a few selected college counseling centers, the traditional 50 minute f2f therapy model is now expanding to include online technology such as informational websites, assessment and psychotherapeutic software, online support groups, and comprehensive self-help programs. More technologically experienced clinicians are exchanging emails with clients they see in f2f therapy or even

operating their entire practice online using a continuum of communication tools (e.g., videoconferencing, instant messaging, and self-help resources) [Fenichel, 2010]. At the college level, online counseling has the potential to meet the needs of students presenting with typical college adjustment or other developmental concerns that are greatly underserved due to the crisis management needs of college counseling centers. A considerable number of these students are waitlisted and sometimes not seen by a counselor until the following academic semester.

Research pertaining to online counseling has generally developed in a two-step approach, beginning with anecdotal and professional opinions, to more recently, examination of these speculative statements through empirical methods. The general conclusions derived from most quantitative studies indicate that online counseling is just as efficacious as f2f therapy and is becoming widely accepted within the mental health field (Kraus, 2010). Research also suggests that online counseling can adequately address a wide range of mental health conditions (e.g., depression, panic disorders, substance abuse, eating disorders, and smoking cessation) [Barak, Hen, Boniel-Nissim, & Shapira, 2008] and that a strong therapeutic alliance can be created and maintained throughout the course of treatment (Murphy et al., 2009). To identify overarching principles and best practices for online counseling, future directions for this developing field include improving service quality and access and improving the research methods used to study the effectiveness of online counseling (Cartreine, Ahern, & Locke, 2010).

Research exploring public attitudes and pinpointing those people most likely to be interested in utilizing online mental health support is more limited than research

evaluating the efficacy of or client satisfaction with online counseling. Preliminary investigation suggests that personal/individual differences exist (e.g., personality traits, locus of control, perceptions of stigma, and level of distress) between people who prefer to utilize f2f counseling in comparison to people who prefer to utilize online counseling services (Klein & Cook, 2010; Tsan & Day, 2007). Several studies focusing on the college population (e.g., Klein & Cook 2010; Proudfoot et al., 2009; Richards, 2009; Ryan, Shochet, & Stallman, 2010) found evidence that young adults preferred or were willing to use more informal forms of mental healthcare such as informational websites or online counseling but that the majority of participants lacked sufficient understanding and awareness of what online services may offer to fully utilize such support. For example, Hass et al. (2008) determined that 279 students (24.0%) out of a total of 981 respondents to an online outreach service for students at risk for suicide engaged in one or more anonymous online dialogues. These findings suggest that college students may be willing to utilize online counseling, but that student exposure to the possibilities and various forms of online counseling will be critical.

To stay marketable in today's economy, mental health practitioners cannot ignore the influence of new technology and communication. College counseling centers are in a position to advance the field of online counseling due to current fiscal constraints and high student demands for mental health services. Before choosing to offer online services, it is important that college counseling centers consider potential delivery methods, understand which students would most likely use such support, and identify potential barriers to implementing online services. Important challenges to consider

include the lack of visual cues and increased potential for misunderstanding, increased client anxiety due to delays in response time, and clinicians' ability to protect clients in immediate crisis, for example in cases of suicidal or homicidal risk (Yahpe & Speyer, 2010).

More research is now needed to expand on existing empirical data, and continue to evaluate anecdotal evidence through empirical methods. In moving forward at the college level, it is especially important to gain a thorough understanding of students' interest in and attitudes towards online mental health services to guide program development. The current study explored students' knowledge of and interest in online counseling services. A questionnaire consisting of several standardized measures and items developed by the researcher will gather specific information regarding student attitudes and potential utilization of an email counseling service as conducted between an individual student and a counselor. Several nonspecific questionnaire items also inquired about general student interest in other alternative asynchronous and synchronous counseling services including videoconferencing (e.g., Skype), discussion boards, chat room discussions, and peer support groups. Although positive attitudes towards online psychological help may not necessarily translate to actual utilization of such services (Ajzen, 1991), acquiring this information may encourage discussion about how to best meet student needs and expand outreach efforts to students less inclined to seek online support. After defining terms, the following review of the literature for online psychotherapeutic interventions will examine: online communication benefits and challenges, current empirical findings on the efficacy of online counseling, current

empirical findings on public interest in and attitudes towards online counseling, ethical concerns, and training requirements for interested clinicians. A final section will discuss the initial success of online services currently being offered on select colleges and health websites for the college student population.

CHAPTER TWO

LITERATURE REVIEW

Terms, Definitions, and Current Services

In most literature and among professionals, "online therapy" is commonly referred to as cybertherapy, e-therapy, webcounseling, or computer-mediated psychotherapy (Barak, Klein, & Proudfoot, 2009). The term "online counseling" in this study is defined as services performed by a mental health professional via various Internet-assisted modalities including email, chat (e.g., instant messaging or chat room), and videoconferencing. The term "text-based counseling" will be specifically used to discuss online counseling occurring within email or chat modalities.

Online counseling provides two main methods to interact with clients: asynchronous and synchronous communication. Asynchronous modalities include emailing, message boards, and weblogs where the therapist and client are not communicating with each other in tandem and time is a fluid entity. Neither participant has to be at the computer at the same time, and each has a chance to consider how and when to respond to the interaction (Yaphe & Speyer, 2010). In synchronous interactions, written or spoken dialogue occurs in "real time" when both the therapist and client have access to a computer (Derrig-Palumbo, 2010). Common examples of this psychotherapeutic environment include instant messaging and videoconferencing.

The use of email counseling in combination with concurrent f2f counseling is a common method of online counseling as a relatively good working computer and internet

connection are all that are required (Recupero & Harms, 2010). For this reason, the current study will focus on the implementation of email counseling services on college campuses. The published research on email counseling since the 1990s can provide valuable information on training, software development, and safety and liability precautions. Furthermore, due to the current economic and staff limitations on college campuses, email counseling services would require the least commitment of new resources such as new computer software, as email is one of the main forms of communication on college campuses and encryption software is readily available. Other modalities such as instant messaging, discussion boards, and videoconferencing would require more professional monitoring (e.g., being at the computer at a designated time and screening discussion boards for potentially harmful information) and potentially more computer software than is currently obtainable. Exploring some of these newer forms of therapeutic intervention would be the next step if students responded positively to an email online counseling program and funding were available to acquire any needed computer software.

Potential Benefits and Challenges of Online Counseling

Communication of therapeutic content in text-based counseling has been shown to have advantages and disadvantages. Basic benefits of online services include convenience and increased access for clients and therapists, the ability to overcome geographical, physical or lifestyle limitations including time constraints, and the capacity to save a transcript of the interaction (Barak et al., 2009; Rochlen, Zack, & Speyer, 2004). Other researchers have cited technological software as an efficient method to

serve a greater number of individuals, provide relevant supplementary material, and act as a gateway to f2f therapy (Richards, 2009). For example, at a college that offered an online outreach service for students at risk for suicide, 190 students (19.4%) out of a total of 981 respondents to the program eventually saw a counselor for an in-person evaluation (Haas et al., 2008). A final benefit is that the act of writing may itself help a client increase accountability and self-awareness (Recupero & Harms, 2010). Logistical concerns have been noted, however, and include technological failures, the time delay, diagnostic limitations, crisis intervention, and maintaining confidentiality (Barak et al., 2009).

Therapeutic expression through writing. When computers and information technology began to have a significant impact in the field of clinical psychology during the late 1990s, clinicians interested in practicing online did not have computer specific interventions, theories, or a business model to follow (Grohol, 2004). With the leadership of a number of business entrepreneurs and several commercial enterprises (e.g., LifeHelper.com, Here2listen.com, and HelpHorizons.com) online counseling became a marketable service including a number of benefits and limitations (Grohol, 2004). For example, the asynchronous nature of email interactions allows both the clinician and client a greater degree of self reflection. The ability to save email messages also allows the client to review previous therapy conversations and clarify misunderstandings or interpret emotionally charged passages from a new perspective (Rochlen, Zack, & Speyer, 2004). Furthermore, it has been suggested that the typing may work as an externalizing mechanism (e.g., client is able to see what they are

thinking/feeling on the computer screen) and lead to greater therapeutic change (Yaphe & Speyer, 2010). From the clinician's perspective, written documentation of therapy makes the process of supervision, consultation, and assessment of a client's therapy progress easier as entire email interactions can be sent to one's supervisor or colleague for consultation (Yaphe & Speyer, 2010).

However, text-based counseling as the primary means of therapeutic contact may also be anxiety provoking and difficult to maneuver. Key concerns include the time delay and disparities in writing ability between the clinician and client (Barak et al., 2009). For example, if a client sends an email on a Friday evening, after the standard Monday-Friday 9am-5pm work week, would a counselor not respond until Monday morning? This situation could introduce significant distress when an individual is already suffering. Also, differences in writing abilities between clinician and client can increase the likelihood of misunderstandings and affect the therapeutic relationship if empathy and a caring stance are not effectively communicated to the client through writing (Recupero & Harms, 2010). To overcome these possible writing and technical complications, it is important that clinicians clearly state expected email turnaround times and what to do in the event of a misunderstanding. Furthermore, the International Society for Mental Health Online (ISMHO) encourages clinicians to assess clients' skills, attitudes, and past experiences with writing prior to the start of treatment (ISMHO, 2011).

The absence of face-to-face cues. Absence of f2f cues is one of the most drastic differences between text-based and traditional f2f counseling modalities. In f2f therapy, facial expressions provide important information about how the receiver understands,

interprets, and emotionally reacts to the words that were just spoken. Suler (2010) states that communicating solely through text will have different implications depending on such factors as the client's preferred mode of interaction and presenting problem. The lack of visual cues for some clients may create ambiguity, inhibit intimacy, and produce anxiety as one is left to imaginative thinking to fill in the gaps of what cannot be "seen" on the computer screen. To the contrary, the text-based environment may appeal to some people and can help to contain over-stimulation in people experiencing trauma, social anxiety or other issues involving shame and guilt (Leibert, Archer, Munson, & York, 2006).

Without physical cues in online counseling, there is a need to develop alternative methods to identify, understand, and communicate feelings and emotions that do not rely on nonverbal body language. Active online consumers are right in the middle of this process, creating a new form of communication. Commonly used techniques to add depth in online relationships include: changes in text font, size or color, voice accentuations (e.g., *ANGER* to indicate a vocal emphasis), trailers (e.g., as…, uh…, and um… to indicate a hesitation or break in one's train of thought), acronyms (e.g., lol for "laugh out loud"), and exclamation points to emphasize emotion or lighten the mood (Suler, 2010). Murphy and Mitchell (1998) also state that emotional writing can be achieved by providing clients with images (e.g., I [therapist] am jumping up and down in excitement for what we have achieved through our interactions today), or incorporating figurative language (e.g., metaphor and symbols) into the writing. Unfortunately, people commonly overestimate their ability to effectively communicate through email (Kruger,

Epley, Parker, & Zhi-Wen, 2005) and subtle humor or sarcasm may be easily misinterpreted without the sender's body language or vocal qualities. To communicate effectively with clients online, it is important that clinicians notice client's writing style and then mirror their use of expressive writing techniques (Derrig-Palumbo, 2010).

The therapeutic relationship. In comparison to f2f therapies, mental health professionals report online clients are able to express themselves more openly and disclose higher levels of personal information at a quicker pace (Yaphe & Speyer, 2010). Referred to as the "disinhibition effect" by many researchers (e.g., Richards, 2009; Suler, 2010; Yaphe & Speyer, 2010) the phenomenon is possibly due to people feeling less vulnerable about opening up in an anonymous context and not having to address immediate reactions of others regarding disclosed information (Suler, 2010). A willingness to reveal highly personal information in email communications with a counselor is also evident among the college population. For example, out of 50 email communications with a counselor assigned to the students' cases at a college counseling center during a 14-month period, five related to suicidal ideation, six disclosed feelings of loneliness, and seven addressed symptoms of depression (Richards, 2009). In f2f counseling, it generally takes clients several sessions to disclose such information; only five individuals emailed a counselor more than once, suggesting that the majority of students disclosed highly sensitive information at the first point of contact (Richards, 2009). In an online method of outreach to college students at risk for suicide, one student wrote the following in the first point of contact with a counselor:

> "…I'm also involved in a lawsuit, which is scaring me so much, for a car accident I caused over 4 years ago, and the woman wants way more money than we have, so it will affect me for the rest of my life—another reason why I don't think it's worth sticking around. I think the depression questionnaire was a God-send before I did something stupid…" (Haas et al., 2008, p. 18).

Two current examples of possible alternative counseling models include the Israeli online emotional support service, SAHAR (http://www.sahar.org.il), and the Samaritans organization in the United Kingdom (http://www.samaritans.co.uk). Data from both of these services suggest that users are comfortable in disclosing highly sensitive material. Samaritan research indicates that service users expressed feeling suicidal, disclosed that they had a suicidal plan, or expressed having made a suicide attempt in 40.3% of email contacts and 48.4% of sent text messages (using a cell phone or other mobile device) [Samaritans, 2010]. These figures compare with an average of 19.2% of users disclosing past or in progress plans of self-harm across all other methods of communication (e.g., telephone, f2f, and letter) [Samaritans, 2010]. Implementation of synchronous modalities for crisis management would provide a chance for continuous dialogue that is not possible with email formats, and online peer group supervision would allow clinicians to simultaneously seek and utilize supervision.

Potential clientele. Identifying the clientele who would be most interested in and/or benefit from online counseling is another important component of planning for providing online treatment. Comfort with and acceptance of online counseling will most

likely fall on a continuum with some individuals readily accepting of and excited to try the new counseling medium, to individuals showing some interest but not having a space that allows for confidentiality, to other individuals thinking that forming a meaningful relationship with a counselor online is impossible. The clientele likely to be most suitable for online counseling are people seen in outpatient settings, while those generally thought not appropriate are people experiencing severe pathology (e.g., suicidal ideation, thought disorders, and borderline personality disorder) or being treated in inpatient programs (Kraus, 2010; Stofle, 2001). Specific conditions that have been shown to be appropriate for online counseling and/or other internet-supported interventions include subclinical difficulties (e.g., Murphy et al., 2009), major depressive disorder (e.g., Vernmark et al., 2010), post-traumatic stress disorder (e.g., Klein et al., 2010; Sloan, Gallagher, Feinstein, Lee, & Pruneau, 2011), social phobia (e.g., Andrews, Davis, & Titov, 2011; Tillfors et al., 2008), eating disorders (e.g., Gulec et al., 2011; Lindenberg, Moessner, Harney, McLaughlin, & Bauer, 2011), and smoking cessation (e.g., Hutton et al., 2011; An et al., 2010).

In a college setting, students likely to benefit most from online counseling include students presenting with mild concerns (e.g., mild depression, developmental concerns, and academic conflicts) that are put on a waitlist and unable to meet with f2f counselor right away. Students with such issues may only need validation and direction which may take as little as one email session. Furthermore, these concerns affect a large proportion of the student population and such client-counselor dialogue posted on a psychoeducation online forum accessible to all students may act as a measure in preventing more serious

mental health concerns. Other students who seek anonymity for fear of too much exposure at one time (e.g., victims of sexual abuse, members of the LGBT community, or students who believe there is something terribly wrong with them) may also find online support especially appealing. Until the discipline of online counseling is firmly established, offering online treatment to people with serious mental health concerns is likely to be ethically too risky for the majority of practicing clinicians. Based on the work of online suicidal crisis/outreach programs (e.g., Haas et al., 2008; Ryan et al., 2010; SAHAR, n.d.; & Samaritans, n.d.) it appears that treating suicidal clients is providing the groundwork and crisis management practice needed to move in the direction of meeting the needs of more at-risk clientele. At the college level, addressing the needs of at-risk students through online counseling becomes a complex issue. It can be argued that online counseling for a student in moderate to severe emotional distress is probably better than having no contact with a mental health professional. College campuses however, have a responsibility to keep students safe and minimal staff resources and limited ability to respond immediately to email messages may entail significant liability concerns for a university. Ultimately, unless more immediate response methods are developed it is very possible that treating more at-risk students is not a realistic option in a college setting.

Research Outcomes

Empirical research investigating the effectiveness of and client satisfaction with online counseling indicates that this new treatment modality is comparable to f2f counseling with similar treatment outcomes (Barak et al., 2008; Murphy et al., 2009).

The few studies examining client interest and use of online counseling suggests that the general public (including the college population) is interested in and willing to try online counseling but that the majority of people lack an awareness and/or understanding of how online counseling works (Klein & Cook, 2010; Murphy et al., 2009). The following two sections summarize the current empirical findings regarding online counseling. The knowledge gained from such research can then be applied to establishing a reasonable standard of care.

Research on efficacy. Barak et al. (2008) conducted a meta-analysis of 92 studies [published anytime until March 2006] investigating the effectiveness of various internet-based psychotherapeutic interventions for a range of disorders. Although treatment outcome was measured differently across studies, Barak et al. (2008) found an overall effect size (ES) of $g = 0.53$ which is considered to be a medium effect (Cohen, 1988) and similar to the ES found in studies examining the effectiveness of f2f counseling (Lambert & Ogles, 2004). When examining the data for 27 studies which specifically investigated online counseling conducted asynchronously and synchronously with a therapist, the reported ES was $g = 0.51$ and $g = 0.53$ for email and chat interventions, respectively (Barak et al., 2008). Similarly, Murphy et al. (2009) found comparable Global Assessment of Functioning Scale (GAF) improvement and Client Satisfaction Survey scores for clients receiving either f2f or online counseling for a variety of concerns (e.g., work stress, marital problems, anxiety/depression, and parenting issues). These findings suggest that online counseling is becoming a viable treatment option that can meet the needs of people in psychological distress.

Empirical research has also indicated that online counseling is useful in the treatment of several specific disorders. Barak et al. (2008) found a higher ES for issues that were more psychological in nature (e.g., depression, anxiety, and body image) than for concerns that were primarily physiological or somatic such as weight loss or reducing blood pressure. The average ES as measured by several types of outcome measures (e.g., self-report questionnaires, assessments by experts, and physiological measures) for various psychological disorders reported in Barak et al. (2008) included $g = 0.88$ for PTSD ($N = 148$), $g = 0.80$ for panic and anxiety disorders ($N = 498$), $g = 0.45$ for body image concerns ($N = 221$), and $g = 0.32$ for depression ($N = 2500$). In contrast, the average ES (using the same outcome measures) for weight loss and physiological concerns was $g = .17$ and $g = .27$, respectively (Barak et al., 2008). Online counseling may also be particularly appealing to individuals with social anxiety and avoidant personalities due to the fear of seeking and meeting a therapist. Andrews (2011) reported comparable results for f2f counseling and internet cognitive behavioral therapy for social phobia, with no significant differences between groups on primary outcome measures (the Social Interaction Anxiety Scale and the Social Phobia Scale). Supporting these results, Tillfors et al. (2008) determined that internet delivered self-help for social phobia and public speaking fears among college students was just as effective with and without live group exposure sessions. The reported average within-group ES on primary outcome measures (the Liebowitz Social Anxiety Scale self-report version, the Social Phobia Scale, the Social Interaction Scale, and the Social Phobia Screening Questionnaire) at

post-test for the participants who received group exposure and the participants who only received the self-help online material was $d = 1.01$ and $d = 1.00$, respectively.

The above results are encouraging as it is fairly common that individuals with social anxiety are unable to initiate or participate in f2f counseling (Kessler, 2003). According to the National Comorbidity Survey Replication ($N = 9282$), treatment for pure social phobia (non-co-morbid) follows a significant inverse relationship between number of fears and seeking treatment. Out of the respondents with pure social phobia ($n = 213$), treatment was accessed by 25.9% of individuals with 1-4 fears, 16.6% of respondents with 5-7 fears, 14.3% of individuals with 8-10 fears, and 8.4% of respondents with 11 or more fears (Ruscio, Brown, Chiu, Sareen, Stein, & Kessler, 2008). Therefore, the key is finding a method of treatment that individuals with social anxiety are able to access given possible social limitations. If an individual is unable to seek f2f counseling initially, online counseling may be an acceptable first step for treatment. Although online counseling may improve access to care, a number of professionals, given the lack of contact inherent with online counseling are also concerned that clients will learn to utilize interpersonal skills over the internet that are not then subsequently applied to f2f counseling sessions and other everyday interactions (Leibert et al., 2006).

In light of these findings, the current study will incorporate survey items that assess participants' comfort in discussing personal problems in f2f counseling and if they would be interested in seeking online support for symptoms related to social anxiety, including not having close friends and/or being shy or uncomfortable in social situations.

If a method existed of insuring that social competency skills were applied to everyday interactions, online counseling for social phobia could potentially increase access to evidence-based therapies and reduce the time required by therapists to administer the treatment. Andrews (2011) noted a substantial difference in the amount of therapist time required between f2f counseling and online modalities over eight weeks of treatment with an average of 18 minutes of therapist time required for each online participant and 240 minutes of therapist time required for each f2f counseling participant.

Research on client satisfaction. The effectiveness of online counseling is also dependent on client satisfaction as clients are less likely to adhere to and benefit from treatment if treatment is not satisfactory and/or does not meet client expectations. Initial research in this area is quite limited due to small sample sizes and weak experimental designs but suggests that clients are generally less satisfied with online counseling in comparison to f2f counseling. In the most extensive study to date, Hanley and Reynolds (2009) examined the online therapeutic alliance in adult therapy across five studies (N = 161) that utilized asynchronous communication or a combination of asynchronous and synchronous communication. Using various alliance measures (e.g., Working Alliance Inventory, Working Alliance Inventory-short form, and Agnew Relationship Measure-short form), each study reported high to moderate alliance scores suggesting that participants felt enough connection with the clinician to enable therapeutic change (Hanley & Reynolds, 2009). Conversely, in a preliminary study of an email online counseling program among college students, Richards (2009) reported lower client satisfaction in online counseling from students (n = 7) who completed the Client

Satisfaction Inventory-short form (CSI-SF). Statistical analysis revealed a significant difference between online counseling and f2f counseling when the reported mean online client satisfaction score of 58 (out of 100) from Richards (2009) was compared to the original mean validation score of 81 for f2f counseling from McMurtry and Hudson (2000). Furthermore, Khasanshina et al. (2008) determined that client satisfaction of students (n = 44) receiving f2f counseling with psychiatric consultation using videoconferencing technology was lower than students (n = 495) only receiving f2f counseling. Collectively, these results illustrate the potential for therapeutic relationships to develop in online mediums but that clients are possibly finding online counseling less satisfying when compared to f2f counseling. Further research is warranted with better control groups and larger sample sizes.

Research on client interest and utilization. Research on public interest and potential use of online counseling services can provide important information about people who may be interested in seeking online support and how to make these types of services most accessible. A recent survey of 218 Australian community members (age 18-80) demonstrated promising public interest in online counseling with 22.9% of respondents endorsing a preference for using online mental health services and 77.1% of respondents endorsing a preference for using traditional f2f counseling (Klein & Cook, 2010). Furthermore, online counseling use patterns have been identified by gender and time spent using the internet for personal reasons. For example, Richards (2009) found comparable usage trends in online counseling mediums by gender as traditional f2f counseling (21% male and 79% female). Leibert et al. (2006) established a positive

correlation between general internet usage and the use of online counseling with individuals who used the internet for more than 10 hours per week for personal reasons being more likely to seek online counseling services.

Likewise, certain traits and attitudes predict preference for online counseling versus traditional f2f counseling. Klein and Cook (2010) determined that people who prefer online counseling in comparison to people who prefer f2f counseling hold stronger stigmatized beliefs associated with accessing mental health services, place a lesser emphasis on physicians' abilities to remedy mental concerns and/or a greater emphasis on chance to address mental health difficulties, and have lower extraversion, agreeableness, emotional stability, and openness to new experience scores on personality measures.

Furthermore, research comparing the range of students' presenting issues in email counseling with the students receiving f2f counseling at the college counseling center revealed no significant differences in student difficulties between the two forms of therapy (Richards, 2009). Interestingly, however, Ryan et al. (2010), in exploring possible topics of interest for students interested in using online counseling (N = 252), determined that time management and diet and exercise were priorities for students with low levels of distress while relaxation/keeping calm and depression/anxiety were important areas for students experiencing high levels of distress and that work/life balance was a topic of interest for all sampled students. These general use findings can be of great value in developing online services and can help to tailor individualized treatment plans and possibly improve treatment adherence.

Online outreach programs. Positive results have also been identified in regard to outreach programs for college students showing signs of psychological distress and/or being at risk for suicide. For example, Ryan et al. (2010) examined college students' preference for formal and informal support as a function of level of psychological distress (N = 251). The likelihood of student use of online mental health services positively correlated with level of psychological distress, with 57.7% of participants experiencing high psychological distress indicating that they were "quite likely" or "very likely" to use an online student program; 49.4% of moderately distressed participants expressing that they were "likely" to use online support; and 36.1% in the low distress indicating that they were "likely" to use online programs.

Initial interpretation of the findings proposed by Ryan et al. (2010) suggests that online outreach services have the potential to reach students who are in need of support but are unlikely to seek it without someone to facilitate the process of taking the first step. Upon further examination however, the results also raise an important caveat from social psychology research regarding the inability to definitively predict an individual's intention to perform a behavior based on attitudes towards the behavior. According to one the most persuasive predictive theories, the theory of planned behavior (Ajzen, 1985), an individual's intention to perform a given behavior is a function of motivational factors that influence the behavior and volitional control of the behavior in question.

Application of the theory of planned behavior therefore suggests that actual rates of online counseling use may differ from the intentions expressed by students if motivational and/or volitional factors are not met. An individual's intention to use online

counseling may involve motivational factors such as a need for psychological support, the belief that online counseling may provide relief, and anonymity. Volitional control factors may include an individual's ability to contact a counselor and having a computer and a private space to communicate with a counselor by email.

Students have also shown willingness to use online counseling outside of the college counseling center's regular business hours and as a psychoeducational tool. For example, results of an online counseling program offered by the college counseling center at Trinity College in Dublin, Ireland demonstrated that a significant number of students used the online service when the college counseling center was not open. More than two-thirds of submission were emailed outside of the regular office hours, (Monday to Friday 9:00am-5:00pm) was 77% (N = 34) (Richards, 2009). Furthermore, the use of the website as a psychoeducational tool was also evident as the number of users increased while the number of submitted questions/concerns decreased. During a 14-month period, the 50 received submissions received 7,141 views by other users in the system with each submission being viewed an average of 146 times (Richards, 2009).

Consistent with the results of Richards (2009), Michaud and Colom (2003) examined users' overall satisfaction with and perceived usefulness of an internet health site for adolescents in Switzerland (http://www.ciao.ch) which included general health information and an opportunity to ask personal questions which are then answered by a trained professional. Out of the questionnaires completed by users who asked personal questions (N = 257), 92% felt that the professional responding to their question had clearly understood their problem. Moreover, the use of the website as a way to promote

healthier lifestyles was also clear as 55% of the respondents stated that they had changed their behavior as a result of the suggestions they had received (Michaud & Colom, 2003). In conclusion, the results of these two studies suggest that young adults have a significant interest in using online services as a psychoeducational tool, are able to communicate effectively with online practitioners and that online programs may be a worthwhile addition for students who are unable or unwilling to utilize the college counseling center's f2f services.

Online peer support. Online peer support groups may be another potentially appealing service to the college population. In email communications between people recently diagnosed with Bipolar Disorder and people who had been effectively managing their Bipolar Disorder for at least two years, recently diagnosed individuals reported the interactions permitted a greater acceptance of the diagnosis, reduced feelings of isolation, and provided practical information and advice (Proudfoot et al., 2009). At the college level, such services could be an effective way to prevent relapse and encourage continuation of treatment. Logistically, an online peer support group could operate by pairing seniors and juniors with first year students or other students who just received a diagnosis.

Conversely, however, Freeman, Barker, and Pistrang (2008) evaluated the use of an online support group for college students ($N = 238$) with various psychological concerns and found no evidence for the additional benefit of online peer support. Participants with access only to a website containing information about student problems and participants with access to an identical website and an online peer support group both

improved over time on two out of three outcome measures (Clinical Outcomes in Routine Evaluation—Outcome Measure, Satisfaction with Life Scale, and Sense of Community Index) [Freeman et al., 2008]. Freeman et al. (2008) noted that the online peer support group mirrored online groups that are professionally led (e.g., a few active members with mostly silent readers) but that perhaps the results were skewed by the short length of the study (10 weeks) [Freeman et al., 2008]. The authors suggest that the potential benefits of an online support group were not identified in the study because the support group was not yet functioning therapeutically. Accordingly, the mixed results of these two studies highlight the need for further research to determine how long it takes for therapeutic factors to develop in such a setting and whether peer online groups addressing specific conditions may be more appropriate at the college level.

Online counseling as a gateway to f2f treatment. Due to the severity of problems reported from students seeking counseling services, the potential of online services to act as a gateway to professional and/or f2f counseling is another important research area. Many students currently experiencing psychological distress are not seeking mental health support. According to a study on the psychological wellbeing of first year university students, only 5% of respondents utilized university counseling services out of a total of 344 respondents classified (using the General Population Well-being Measure) to be at-risk for mental health problems (Cooke, Bewick, Barkham, Bradley, & Audin, 2006). Initial research with students first trying online mental health programs and subsequently continuing treatment online or scheduling f2f counseling is encouraging. For example, at a college counseling center that offered online services,

24% (n = 10) of users who interacted with a counselor by email went on to seek f2f therapy, with an average of six months between using online services and meeting with a counselor in-person (Richards, 2009). Likewise, Haas et al. (2008) noted that students identified to be at-risk for suicide but who chose not to schedule an in-person evaluation often acknowledged that online dialogues with a counselor made them more open to the possibility of seeking f2f treatment in the future. Such findings provide further support for the use of online counseling as an extension of current services being offered for students who are hesitant or hold stigmatized beliefs toward mental healthcare.

Liability and Ethical Considerations

The modality of online counseling is steadily becoming an accepted form of therapy as treatment efficacy studies are showing positive results. Many of the remaining obstacles related to widespread implementation of online counseling pertain to legal regulations, clinical competency, and the lack of third-party payment options (Cartreine et al., 2010; Kraus, 2010). State laws govern health care service delivery, and state licensing boards for mental health professionals only allow clinicians to practice in the state where the clinician is licensed (Kraus, 2010). Therefore, clinicians practicing online counseling across state lines could encounter significant legal risk in a malpractice claim. At the college level, these regulations limit the ability of counseling centers to provide services to students who are not physically on campus such as when a student chooses to travel abroad to another country. Unfortunately, online counseling could be quite useful in such a situation, but poses significant liability concerns to a university. Potential options for a clinician interested in practicing online counseling include obtaining

licensure in both the clinician's state and the client's state and advocating for a system of national licensure for mental health professionals (Zack, 2010).

While state and federal regulations continue to be defined as malpractice suits are brought forth, professional organizations provide some guidance. The American Psychological Association (APA) briefly addresses online clinical concerns stating that their general ethical standards also apply to psychological services delivered over the internet (APA, 2010). The American Counseling Association (ACA) and the American Mental Health Counselors Association (AMHCA) have created separate technology-assisted counseling sections in their ethical codes clearly addressing specific issues related to online services. These additional sections provide information on how to modify informed consent procedures for online use, the importance of attaining accurate client identification, using encryption software, abiding by state and local regulations, and developing alternative contact methods in emergency situations (ACA, 2005; AMHCA, 2010). As clients have control over the location and type of computer used to communicate with a counselor, a final aspect of practicing ethically requires that clinicians review how clients can maintain confidentiality (e.g., limiting access by others to computer used for online therapy, double checking the email address before sending an email, and having a discussion about encryption software and how to properly save email and chat sessions with an online counselor) [Kraus, 2010].

Online counseling requires a skill set that extends beyond general graduate behavioral health training programs. It is critical that both clinicians and potential consumers become familiar with the various types of online treatments while

understanding the possible advantages and disadvantages associated with each modality (Fenichel, 2010). To fulfill a training need in online counseling modalities, university settings and national organizations are quickly organizing formalized training opportunities as full courses, continuing education credits, and seminars. Although the ISMHO neither evaluates nor sanctions any specific training programs, the organization's website provides a list of possible training opportunities while encouraging interested clinicians to do further research into programs that are of interest (ISMHO, 2011). To provide more rigorous training opportunities, Cartreine et al. (2010) recommend that universities offer online counseling as a specialty track with an emphasis in evidence-based treatments.

The cost of care is another factor limiting service utilization and the potential growth of this field. The majority of clients seeking online services today pay out of pocket using a credit card or other secure payment system such as PayPal (Cartreine et al., 2010). In 2004, the possibility of third-party payment for *established patients/clients* began with the insurance code 0074T which was then revised to code 99444 for physicians and 98969 for non-physicians in 2008 (Zack, 2010). Federal health insurance plans have followed allowing for people covered by Medicare Part B to receive Internet-supported therapeutic interventions with audio and video equipment explicitly defined to telephone, fax, and email (Health and Human Services Regulation on Telehealth, 2010).

Summary

Collectively, the reviewed literature supports the potential clinical utility of online counseling and suggests that online mental health services may be a useful alternative for

people who are uncomfortable with or unable to access traditional f2f counseling. Studies investigating public interest in online counseling highlight the public's willingness to at the very minimum try the new modality and the potential for clinicians to have consistent clientele if people are satisfied with the service. One concern noted in several studies, however, was the lack of user knowledge and understanding of what to expect when engaging in online counseling. Klein and Cook (2010) stated that 54% of sampled college students (n = 118) endorsed the statement "I would need to know more about e-mental health services." Likewise, when outlier scores were included in the analysis of client satisfaction between f2f counseling and online counseling modalities, Murphy et al. (2009) found higher client satisfaction scores for f2f counseling. Murphy et al. (2009) attributed such differences to clients not having appropriate expectations of problems that may arise when communicating with a counselor online (e.g., possible technical issues and needing to find a quiet and secure space when responding to a counselor's email). Therefore, in proceeding with the development of online counseling programs, client education will be essential with further discussion of possible services and what to expect when engaging in online counseling prior to the start of treatment.

CHAPTER THREE

STATEMENT OF PURPOSE AND HYPOTHESES

Student needs at college counseling centers are outpacing current resources. Key organizations such as APA and the California higher public education systems and professionals in the field are reevaluating how services can be best delivered. Discussion has highlighted the importance of incorporating technological advances into current practice standards. The initial research regarding online services (e.g., Barak et al., 2008; Klein & Cook, 2010; Murphy et al., 2009; Richards, 2009) shows promising results in terms of student interest and clinical effectiveness. With the need to maximize limited resources among a large student body, university counseling centers are in a position to take leadership. The first step in developing an online counseling program for the college population is to assess college students' attitudes and willingness to try online counseling while identifying potential barriers to implementing online services.

Based on the literature, the following hypotheses and research questions were developed to explore the interest in and potential utilization of online counseling by college students.

Hypotheses

1. It is hypothesized that females will be more interested in utilizing online counseling than men. This hypothesis is substantiated by previous findings which indicate that men are less interested in and engage in online counseling less often than women (Khasanhina et al., 2008; Klein & Cook, 2010; Richards, 2009).

2. It is hypothesized that participants who report conflicts in accessing the college counseling center during regular business hours will be especially likely to report interest in online services. The rationale for this hypothesis is based on previous research by Richards (2009) at Trinity College, where an online email counseling service was utilized by a significant number of students when the college counseling center was not open.

3. It is hypothesized that participants who use the internet for more than 10 hours per week for personal reasons will report more interest in online counseling. This hypothesis is validated by previous research findings which reported that individuals who used the internet for more than 10 hours per week for personal reasons were more likely to seek online counseling services than individuals who did not use the internet as often (Leibert et al., 2006).

4. It is hypothesized that general help-seeking attitudes, belief in the value of f2f counseling, and belief in the value of online counseling will all correlate positively. Rationale for this hypothesis is substantiated by previous research indicating that participants who displayed positive general help-seeking attitudes also expressed positive views towards f2f counseling and online counseling (Rochlen, Beretvas, & Zack, 2004).

Research Questions

1. Do college students who currently use expressive writing techniques and/or figurative language in email messages report more positive attitudes and interest in online counseling?

2. In comparison to f2f counseling, do college students think online counseling would permit greater control (e.g., when to initiate contact, pace and parameter of self-disclosure, power differential between professional and client) and an increased ability to express oneself?

3. What percentage of students seeking online services would agree to provide accurate identification information and agree to an immediate f2f or telephone counseling session if the counselor thought it was necessary?

4. What percentage of students report an interest in using online counseling as a psychoeducational tool by reading other students' email communications (with identifying information removed) on an online forum that is accessible to all students?

5. What percentage of students demonstrate an interest in seeking online support for symptoms related to social anxiety, including not having close friends and/or being shy or uncomfortable in social situations?

CHAPTER FOUR

METHODS

Participants

A total of 119 participants completed the survey, with Humboldt State University (HSU) students comprising 77.3% (*n* = 92) of the sample and online respondents comprising the remaining 22.7% of the sample (*n* = 27). Participants from HSU were recruited through the psychology subject pool website and online participants were recruited by posting a link to the survey on the following websites: psych.hanover.edu/research/exponent.html and www.matthewshepard.org/engage/youth-blogs/meg-in-the-city/. The majority of the sample was female (71.4%, *n* = 85), White (62.2%, *n* = 74), aged 18-25 (83.2%, *n* = 99), and had declared a social sciences major (63.0%, *n* = 75). Participants took approximately 20-35 minutes to answer all of the questions. Participants recruited from the subject pool received class credit for their participation in the study. Participants from websites were entered in a raffle to receive one of 10 $5 itunes gift certificates.

The ideal sample size for results involving group mean differences would have been 132 participants, providing 90% power to detect a small-to-medium effect size of .40. For correlational analyses, 113 participants would provide 90% power to detect a medium effect size of .30. The achieved sample size of 119 provided the expected power for correlational analyses and provided 85% power to detect an effect size of .40 for results involving group mean differences.

Procedure

A first draft of the survey was developed and revised with the aid of the HSU Counseling and Psychological Services (CAPS) director. A pilot study was then conducted on a group of five graduate students with a second revision phase to modify questions that were unclear or redundant.

Participants recruited from the subject pool completed the study in a psychology research lab in the Behavioral and Social Sciences (BSS) building. Participants were first welcomed by the principal investigator or a research assistant. Afterwards a prewritten script (see Appendix A for entire script) was read and participants were given an opportunity to ask questions. Participants recruited from the websites completed the survey online using Survey Monkey software. To raffle the gift certificates, participants' email addresses were exported to a separate data file from the survey responses. This eliminated any connection between the responses and the email addresses.

Measures

Due to the fairly recent introduction and study of online counseling, few standardized measures exist to assess online counseling attitudes and potential utilization. To adequately assess the current hypotheses and research questions there was a need to create several questionnaires (see Appendices B and C for the complete survey). Questionnaires are described here in order of appearance in survey.

Demographic questionnaire. We created a six item demographic questionnaire to collect information about participants' age, gender, ethnicity, sexual orientation, class rank, and major. Items correspond to survey questions numbered one through six.

Counseling interest and experience scale. We created eight items for this study to assess participants' past, current, and possible future experiences with both f2f and online counseling. Sample items include "I am interested in learning more about a) f2f counseling, b) online counseling, and c) both types of counseling," and "If I were to seek counseling services, it would be difficult for me to discuss my problem(s) with a f2f counselor." Items correspond to survey questions numbered 7-14. Items seven and eight have a "check all that apply" response choice. A multiple choice response format was used for items nine and 10. Participants responded to items 11 through 14 using a "disagree/agree" response choice format.

Attitudes toward seeking professional help. Participants completed the Attitudes Toward Seeking Professional Psychological Help Scale-Short Form (ATSPPHS; Fischer & Farina, 1995) which measures general attitudes toward seeking professional help for psychological concerns. The scale is a 10-item shortened version of an original 29-item instrument (Fischer & Turner, 1970) with a correlation between the two scales of $r = .87$ (Fischer & Farina, 1995). Items with the highest item-total scale correlations were chosen for the revised version. Sample items include: "The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts" and "A person with an emotional problem is not likely to solve it alone; he or she *is* likely to solve it with professional help." Participants rate their level of agreement with each of the items using a Likert scale ranging from 0 (*strongly disagree*) to 3 (*strongly agree*). Responses are summed to yield a total score range of 0 to 30 with higher scores indicating a more positive attitude toward seeking psychological

help. Internal consistency reliability for the short form was found to be similar to the documented values for the Full Scale with α = .84 (Fischer & Farina, 1995). When using the ATSPPHS, Rochlen, Beretvas, and Zack (2004) found an internal consistency of α = .75. The test-retest correlation with a 1-month interval between tests was $r(32)$ = .80 (Fischer & Farina, 1995). The reliability coefficient found in this study for the ATSPPHS was α = .68. This reliability coefficient is notably lower than the reliability coefficients reported by Fischer and Farina (1995) but considered acceptable for the purposes of this study. Items correspond to survey questions numbered 15-24.

Attitudes toward face-to-face and online counseling. Participants completed the Online Counseling Attitudes Scale (OCAS) and the Face-to-Face Counseling Attitudes Scale (FCAS) (Rochlen, Beretvas, & Zack, 2004) to compare attitudes between f2f and online counseling. The OCAS is a 10-item questionnaire that assesses attitudes toward online counseling with two subscales: Value of Online Counseling (OC-V) and Discomfort With Online Counseling (OC-D). Sample items include "It could be worthwhile to discuss my personal problems with an online counselor" and "If I were having a personal problem, seeking help with an online counselor would be the last option I would consider." Participants rate their level of agreement with each of the items using a Likert scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). Scores are calculated by summing the responses to each item from the two subscales, with a score range of 5 to 30 for each subscale. High scores for the OC-V and the OC-D indicate a positive view of online counseling and a high level of *dis*comfort with online counseling, respectively. Rochlen, Beretvas, and Zack (2004) reported test retest

reliability coefficients of r = .88 for the OC-V subscale and r = .77 for the OC-D subscale while Rochlen, Land, and Wong (2004) reported test retest reliability coefficients of r = .93 and r = .91 for the OC-V and the OC-D subscales, respectively. The reliability coefficients for the OC-V and OC-D subscales of the OCAS in this study were α = .84 and α = .78, respectively. Items correspond to survey questions numbered 25-34.

The FCAS is the same 10-item questionnaire as the OCAS except the word "online" is substituted with the phrase "face-to-face" for all statements, and has the following similar subscales: Value of Face-to-Face Counseling (FC-V) and Discomfort With Face-to-Face Counseling (FC-D). For example, the sample items from the previous paragraph would now be worded as "It could be worthwhile to discuss my personal problems with a face-to-face counselor" and "If I were having a personal problem, seeking help with a face-to-face counselor would be the last option I would consider." Participants rate their level of agreement with each of the items using a Likert scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). Scores are calculated by summing the responses to each item from the two subscales, with a score range of 5 to 30 for each subscale. High scores for the FC-V and the FC-D indicate a positive view toward f2f counseling and a high level of *dis*comfort with f2f counseling, respectively. The FCAS yielded test-retest reliability coefficients of r = .85 and r = .87 for the FC-V and FC-D, respectively (Rochlen, Beretvas, & Zack, 2004). Across several studies both the OCAS and the FCAS scales yielded internal consistency ranges of α = .77 to .90 (Rochlen, Beretvas, & Zack, 2004). The reliability coefficients for the FC-V and FC-D

subscales of the FCAS in this study were α = .90 and α = .82, respectively. Items correspond to survey questions numbered 35-44.

Computer and email comfort scale. We created seven items for this study to assess participants' computer skills and degree of comfort felt toward communicating by email and online chatting. Sample questions include "I have the computer skills necessary to communicate with a counselor by email" and "I think it is possible to communicate feelings by chatting online in 'real time' (e.g., instant messaging, video conferencing)." Items correspond to survey questions numbered 45-51. Items 45-50 were answered using a "disagree/agree" response choice. Item 51 asks about weekly personal internet use and will be answered using a forced choice format.

College counseling center email counseling use scale. We created a 22-item questionnaire to assess participants' attitudes and potential use of email counseling if a college counseling center were to offer these services. Items ask participants about issues for which online counseling may be sought, participants' comfort and interest in using online counseling as a psychoeducational tool, and participants' current and potential interest in using expressive writing (e.g., emoticons, voice accentuations, acronyms, and figurative language) to aid in written communication. Sample items include "An online counseling program would be a good alternative for meeting my mental health needs" and "Not being able to see my counselor's facial expression(s) when reading my email message would be okay." The final item asks about participants' interest in additional methods of online counseling (e.g., discussion boards, chat room discussions, and peer support groups).

Items correspond to survey questions numbered 52-72. Items 52-55 and item 72 have a “check all that apply” response choice. Participants responded to items 56-69 using an “agree/disagree” response choice format. Item 70 has a forced choice response format and item 71 was answered using a multiple choice format.

CHAPTER FIVE

RESULTS

Consistent with the literature (e.g., Richards, 2009; Rochlen, Beretvas, & Zack, 2004), results demonstrated promising student interest in online psychological support, with 28.9% of participants stating they had utilized online counseling and 64.4% endorsing online counseling as a good alternative for their mental health needs. A total of four hypotheses and five research questions were developed to explore interest in and potential utilization of online counseling by college students. Each hypothesis and research question required a considerable number of statistical analyses, increasing the probability of type I errors. However, as this study was primarily exploratory, a Bonferroni correction to reduce the risk of experimentwise error was not conducted, so results should be interpreted cautiously.

Results for Hypotheses

Online counseling interest by gender. Hypothesis #1 predicted that females would be more interested in utilizing online counseling than men. To test this hypothesis, two Chi-square tests were performed by gender for survey items #58 and #68. Survey item #58 read: "An email online counseling program through the college counseling center would be a good alternative for meeting my mental health needs ('good alternative')." Survey item #68 read: "I would use email online counseling if I decided to seek psychological support ('would use email')." No significant gender differences were identified for either question. Females did not endorse email online counseling as a good

alternative for mental health services more often than men, nor did they indicate they would use email online counseling more often than men (see Tables 1 and 2 for complete statistical data).

Table 1

Relation of Gender, Access Conflicts, and Internet Time to Belief that Online Counseling is a Good Mental Health Alternative

Variables	X^2	*df*	*n*	*p*	*V*
Gender	.462	1	118	.496	.063
Conflicts in accessing counseling center	5.474	1	118	.019*	.215
Amount of time spent on internet for personal use	1.608	4	117	.807	.117

* $p < .05$.

Table 2

Relation of Gender, Access Conflicts, and Internet Time to Use of Online Counseling if Psychological Support were Sought

Variables	X^2	*df*	*n*	*p*	*V*
Gender	.497	1	119	.481	.065
Conflicts in accessing counseling center	1.898	1	119	.168	.126
Amount of time spent on internet for personal use	1.051	4	118	.902	.094

Five independent samples *t*-tests were subsequently conducted to identify possible gender differences between general help-seeking attitudes (ATSPPHS), perceived value and discomfort with online counseling (OC-V and OC-D, respectively), and perceived value and discomfort with f2f counseling (FC-V and FC-D, respectively) [These scales will collectively be referred to as the "counseling attitudes scales."]. Significant results were found by gender for two of these scales. In comparison to males, females displayed more positive attitudes toward seeking professional help for psychological concerns and perceived a greater value in f2f counseling. Females did not however, perceive a greater value in online counseling than men and therefore, Hypothesis #1 was not supported (see Table 3 for complete results).

Table 3

Mean Differences for Counseling Attitudes Scales by Gender

	Males (n = 34)		Females (n = 85)				
Scales	*M*	*SD*	*M*	*SD*	*t*	*p*	*d*
ATPPHS	17.22	3.00	19.74	3.92	3.362	.001**	.72
OC-V	19.15	4.63	20.00	4.76	.890	.375	.18
OC-D	14.68	5.41	15.52	4.82	.830	.408	.16
FC-V	23.68	4.17	25.68	4.34	2.295	.024*	.47
FC-D	13.68	5.23	12.44	5.42	1.135	.259	.23

* p = < .05. ** p < .01.

Online counseling during non-business hours. Next, interest in online counseling by students who are not able to access the college counseling center during normal hours of operation was examined. It was hypothesized that participants who reported conflicts in accessing the college counseling center during regular business hours would be especially likely to report interest in online counseling services (Hypothesis #2). Statistical analyses first included two chi-square tests using survey items #58 (good alternative) and #68 (would use email) between participants who reported and did not report difficulties in accessing the college counseling center. Participants who reported conflicts in accessing the college counseling center during regular business hours (n = 29) identified email online counseling as a good alternative mental health service more often than participants who did not report scheduling conflicts with the college counseling center's hours of operation. No significant differences were identified between participants who reported and did not report difficulties in accessing the college counseling center regarding intent to use email online counseling if psychological support were sought (see Table 1 and Table 2 for complete Chi-Square analyses).

Subsequently, an independent samples t-test for the OC-V subscale of the OCAS was performed to identity possible group mean differences by this same grouping parameter. The independent samples t-test for the OC-V subscale revealed no difference in perceived value of online counseling, $t(117) = .042$, $p = .97$, $d = .009$ between participants who were able (M = 19.77, SD = 4.80) and not able (M = 19.72, SD = 4.50)

to access the college counseling center during normal business hours. Collectively, the results provided partial support for hypothesis #2.

Online counseling interest and personal internet use. Hypothesis #3 predicted that participants who reported using the internet for more than 10 hours per week for personal reasons would report more interest in online counseling than participants who spent less time on the internet for personal reasons. To test this hypothesis, two Chi-square tests were performed using survey items #58 (good alternative) and #68 (would use email) and the following categories of participants' reported weekly personal internet use: < 1 hour, 1-3 hours, 4-6 hours, 7-9 hours, and 10 hours or more. Neither X^2 test revealed significant results. Weekly personal internet use was not an important factor in the endorsement of email online counseling as a good alternative mental health service nor did it relate to willingness to use email online counseling if they sought psychological support (see Tables 1 and 2 for complete analyses.)

Next, one Analysis of Variance (ANOVA) was conducted for the OC-V subscale and the five weekly personal internet use categories. Results were again non-significant; no mean differences were identified for perceived value of online counseling by participant weekly personal internet use subgroups, $F(4, 117) = 1.96$, $p = .11$, $\eta^2 = .06$. Therefore, hypothesis #3 was not supported.

Relationship between general help-seeking behavior, f2f counseling and online counseling. Possible correlations in general help-seeking behavior and belief in the perceived value of f2f counseling and online counseling were investigated with the prediction that general help-seeking attitudes, the perceived value of f2f counseling, and

the perceived value of online counseling would all correlate positively (Hypothesis #4). To test this hypothesis, the ATPPHS was correlated with the FC-V subscale (perceived value of f2f counseling) and the OC-V subscale (perceived value of online counseling). A large significant correlation emerged between general help-seeking behavior and the perceived value of f2f counseling. Likewise, a small but significant correlation was also found between general help-seeking behavior and online counseling. However, perceived value of f2f counseling (FC-V) and the perceived value of online counseling (OC-V) did not correlate significantly. With two significant results, hypothesis #4 was partially supported (see Table 4 for the complete correlation matrix).

Table 4

Correlations for General Help-Seeking Attitude (ATTPHS), Perceived Value of f2f Counseling (FC-V), and Perceived Value of Online Counseling (OC-V)

Measure	1	2	3
1. ATPPHS	(.676)		
2. FCV	.498**	(.898)	
3. OCV	.177*	.107	(.844)

* $p = .05$. ** $p < .01$.

Note. Scale reliability values (Cronbach's alpha) appear within parentheses.

Collectively, the results of the five hypotheses provide partial support for interest in and belief in the perceived value of online counseling by this sample of college students ($N = 119$). Specifically, the results suggest that email online counseling may be a good mental health alternative for students who are unable to access the college counseling center during normal business hours and/or would be interested in using the service as a psychoeducational tool. A large positive correlation was also identified

between general help-seeking attitudes and the belief in the perceived value of f2f counseling which contrasted with a much weaker correlation between general help-seeking attitudes and the belief in the perceived value of online counseling. Similarly, group mean differences by gender were found for general help-seeking attitudes and belief in the perceived value of f2f counseling but not for belief in the perceived value of online counseling. These findings suggest that online counseling may be beneficial to the college population but that some hesitancy exists. For example, it is possible that online counseling is seen as a more ambivalent form of help-seeking and f2f counseling suggests a higher commitment to behavioral change.

Results for Research Questions

Therapeutic expression through writing. Next, interest in online counseling was investigated by participants' current email message writing style (Research Question #1). Two independent samples *t*-tests were performed for survey item #55 and survey items #58 (good alternative) and #68 (would use email). Survey item #55 read: "To help me communicate through writing when I am online, I currently use (check all that apply): emoticons, voice accentuations, trailers, parenthetical expressions, acronyms, and figurative language." To conduct mean comparisons, these six response choices were added to make a writing style scale tallying the number of writing techniques participants currently use when communicating online. The scale had a 0-6 score range. No significant differences were found for either independent samples *t*-test. Participants who used more writing style techniques ($M = 3.37$, $SD = 1.56$) did not endorse online counseling as a good mental health alternative more often than participants who use

fewer writing style techniques (M = 3.05, SD = 1.73), $t(116) = 1.053$, p .30, d = .20. Likewise, no significant differences were found regarding interest in using online counseling if psychological support were sought between participants who used more and less writing style techniques, (M = 3.40, SD = 1.74) and (M = 3.13, SD = 1.53), respectively, $t(117) = .895$, p = .37, d = .16. Subsequently, the OC-V subscale was correlated with the writing style scale from survey item #55. Again the results were non-significant indicating that use of writing style techniques is not an important factor in the perceived value of online counseling, $r(119) = .11$, p = .23.

Therapeutic relationship and client control. Next, perceived client control in online counseling in comparison to control in f2f counseling was examined (Research Question #2). Four independent samples *t*-tests were conducted with survey items #60-63 and the OC-V subscale. Survey item #60 read: "Not being able to see my counselor's facial expression(s) when reading my email message would be okay." Survey item #61 read: "Writing versus talking about my thoughts and feelings would allow me to be more self-reflective." Survey item #62 read: "I would feel more comfortable and be able to express myself more openly in email online counseling versus face-to-face counseling." Survey item #63 read: "I would feel more in control of my counseling experience in email online counseling versus face-to-face counseling (e.g., when to initiate contact, pace and parameter of self-disclosure, power differential between professional and client)."

Significant results were found for all independent samples *t*-tests. Participants who agreed to the above survey items perceived a greater value in online counseling

(OC-V subscale) than participants who disagreed with the statements (see Table 5 for complete results).

Table 5

Mean Differences for Perceived Value of Online Counseling (OC-V) by Counseling Environment Variables

	Agree			*Disagree*				
Variables	*(n)*	*M*	*SD*	*(n)*	*M*	*SD*	*t*	*d*
Okay with not seeing counselor's face	65	21.31	4.71	54	17.89	4.04	4.205	.78
Writing versus talking would be more	76	20.71	4.46	42	18.05	4.79	3.024	.57
Ability to express oneself more openly	40	21.60	4.34	78	18.88	4.65	3.071	.60
Client Control [a]	56	21.07	4.33	63	18.59	4.77	2.960	.55

All *p*s $< .05$.

[a] i.e., when to initiate contact, pace and parameter of self-disclosure, power differential between professional and client.

Client identification and emergency protocols. As the feasibility of online counseling is contingent upon a university's ability to establish safety measures in crisis situations, students' willingness to provide pertinent contact information and engage in other modalities of therapy during a crisis was next assessed (Research Question #3). Survey item #7 read: "When receiving counseling, it is the counselor's responsibility to

set boundaries for his/her client's safety. If I were to engage in online counseling I would agree to (check all that apply): provide accurate identification and emergency contact information, provide my student identification number, agree to an immediate face-to-face counseling session if my counselor thought it was necessary, agree to an immediate telephone counseling session if my counselor thought it was necessary, and call a mental health hotline if my emotional condition worsened and my personal safety became at risk." Descriptive statistics for survey item #7 indicated that the majority of participants would agree to several of the listed safety measures, including making more direct contact with a counselor if necessary (see Table 6).

Table 6

Percentage of Respondents Endorsing Willingness to Provide Contact Information and Engage in Other Counseling Modalities if in Crisis

	Endorsers
	% (*n*)
Provide accurate identification and emergency contact information.	77.3 (92)
Provide student identification number.	62.2 (74)
Agree to an immediate face-to-face counseling session if counselor thought it was necessary.	78.2 (93)
Agreement to an immediate telephone counseling session if counselor thought it was necessary.	74.8 (89)
Call a mental health hotline if emotional condition worsened and personal safety became at risk.	61.3 (73)

N = 119.

Online counseling use as a psychoeducational tool. Research question #4 investigated participants' interest in using online counseling as a psychoeducational tool by reading other students' email communications on an online forum that is accessible to all students. Statistical analyses included two independent sample *t*-tests regarding the perceived value of online counseling (OC-V subscale) participants who agreed versus disagreed with survey items #59 (good alternative) and #65 (would use email). Survey item #59 read: "Assuming my identifying information is removed, I would agree to have my email message to a counselor and his/her response posted on an online webpage for other students to view." Survey item #65 read: "I would be interested in using email online counseling as a psychoeducational tool by reading the other students' email communications (with identifying information removed) on an online forum that is accessible to all students." As this service of an online counseling program is user generated, a final descriptive analysis was performed to identify participants who would agree to use online counseling as a psychoeducational tool but would not be willing to post their own interactions with a counselor.

The majority of participants (62.2%, $n = 74$) agreed they would use email online counseling services as a psychoeducational tool with 54.6% of participants ($n = 65$) agreeing to post their own correspondences with a counselor. Significant differences were found for both independent samples *t*-tests. Participants who expressed interest in online counseling as a psychoeducational tool perceived more value in online counseling (OC-V subscale) than participants who did not express interest in such a service. Likewise, participants who agreed that they would allow their correspondence with a

counselor to be posted online perceived more value in online counseling (OC-V subscale) than participants who would not be comfortable with posting such an interaction (see Table 7 for complete results). User generation of this psychoeducational tool was promising; only one-third of participants (n = 25) who expressed interest in this resource (n = 74) stated they would not be willing to post their own interactions with a counselor.

Table 7

Mean Differences for Perceived Value of Online Counseling (OC-V) by Psychoeducational Tool Variables

	Agree			*Disagree*				
Variables	*(n)*	*M*	*SD*	*(n)*	*M*	*SD*	*t*	*d*
Use of online counseling as a psychoeducational tool	65	20.97	4.51	54	18.30	4.58	3.195	.59
Willingness to post interactions with a counselor online	74	20.69	4.59	44	18.32	4.57	2.717	.52

All *p*s < .05.

Interest in online counseling for social anxiety. Next, participants' interest in seeking online support for symptoms related to social anxiety, including not having close friends and/or being shy or uncomfortable in social situations, was examined (Research Question #5). Descriptive statistics for survey items #58 (good alternative) and #68 (would use email) indicated that the majority of participants with social anxiety concerns (n = 54) endorsed online counseling as a good mental health alternative (72.2%, n = 39) and would consider using such a service if psychological support were sought (72.2%, n = 39). Analysis also included four independent samples t-tests regarding the perceived

value of online counseling (OC-V subscale) and the perceived discomfort with online counseling (OC-D subscale) for these two subgroups of participants. Significant results were found for both OC-V independent samples *t*-tests. Participants who would consider using email online counseling to address not having close friends perceived more value in online counseling (OC-V subscale) than participants who would not use email online counseling to address not having close friends. One significant result was found for the OC-D subscale independent samples *t*-tests. Participants who endorsed interest in email online counseling for being shy or uncomfortable in social situations perceived less discomfort with online counseling (OC-D subscale), suggesting less discomfort with online counseling than participants who did not express any interest in email online counseling for this concern (see Table 8 for complete results).

Table 8

Mean Differences for Perceived Value of (OC-V) and Discomfort (OC-D) with Online Counseling by Social Anxiety Variables

	Endorsed			*Not Endorsed*					
Interest in online counseling for lack of friends									
Scales	*(n)*	*M*	*SD*	*(n)*	*M*	*SD*	*t*	*p*	*d*
OC-V	24	22.00	3.66	95	19.19	4.80	2.675	.009*	.66
OC-D	24	14.63	4.50	95	15.44	5.12	.715	.476	.17
Interest in online counseling to social discomfort									
Scales	*(n)*	*M*	SD	*(n)*	*M*	*SD*	*t*	*p*	*d*
OC-V	30	21.30	4.57	89	19.24	4.68	2.102	.038*	.45
OC-D	30	13.77	4.35	89	15.79	5.11	1.940	.055*	.43

* $p \leq .05$.

Another component of Research Question #5 investigated how online counseling may be an acceptable first step or addition to treatment given possible social limitations and fear of meeting a therapist. Descriptive analyses were conducted for the two social anxiety participant subgroups and survey items #66 and #67. Survey item #66 read: "I would be interested in email online counseling while also attending weekly face-to-face counseling." Survey item #67 read: "If I had a good experience with email online counseling I would likely seek face-to-face services in the future." Results were promising; a number of participants who endorsed social anxiety concerns expressed interest in concurrent f2f counseling and email online counseling, and were open to the idea of f2f counseling in the future if they had a good experience with email online

counseling. Table 9 provides descriptive statistics for survey items #58, #68, #66, and #67 by the two social anxiety participant subgroups.

Table 9

Percentage of Respondents Interested in Online Counseling (OC) for Lack of Friends or Social Discomfort Who Endorsed Counseling Interest Variables

	Lack of friends (n = 24)	Social discomfort (n = 30)
	% (n)	% (n)
OC as good alternative	66.7 (16)	76.7 (23)
Interest in email counseling	66.7 (16)	73.3 (22)
Interest in using OC and f2f concurrently	66.7 (16)	66.7 (20)
Interest in f2f following good experience with OC	79.2 (19)	83.3 (25)

Developing an Online Counseling Program

A final objective of this research study was to provide useful information for colleges interested in offering online services to students. Descriptive analyses were performed for interest in learning more about counseling services (survey item #10), likelihood of experiencing anxiety if a counselor did not respond to an email right away (survey item #69), length of time participants would be willing to wait for a counselor's response to an email message (survey item #70), text-based online counseling modality preference (survey item #71), and interest in more advanced forms of online services (survey item #72). The majority of participants were interested in learning more about

mental health services, with 63.0% of participants expressing a desire to learn more about f2f and/or online counseling. A substantial number of participants (56.3%) also stated they would feel anxious if a counselor did not respond to their email right away with 37.8% of participants wanting a counselor to reply within 12 hours and 39.5% of participants wanting a counselor's response within 24 hours. Results indicated that 32.8% of participants would prefer to communicate with a counselor by email and 48.7% of participants would choose to communicate with a counselor with instant message. Last, interest in more advanced online services (e.g., discussion boards, chat rooms, video-conferencing, and online support groups) was also promising with participants showing greater interest in services that were facilitated by a mental health professional than strictly peer support without counselor input. Refer to Table 10 for these results from survey item #72.

Table 10

Percentage of Respondents Endorsing Interest in More Advanced Technology/Services

Service type	% who endorsed interest
Discussion boards	48.7
Chat room discussions	51.3
Individual video-conferencing	57.1
Email-based peer support group	34.5
Real-time peer support group	31.1
Real-time group counseling	44.5

N = 119.

Identifying possible target groups of students for whom online counseling may or may not be appropriate is another important aspect when developing online counseling

services. To explore this further, eight one-way ANOVAs were conducted for the OC-V and OC-D subscales by participants' age (survey item #1), sexual orientation (survey item #4), past experience with f2f counseling (survey item #9), and interest in learning more about f2f counseling and online counseling (survey item #10). All *F*-tests were non-significant except for the OC-V subscale by interest in learning more about online and f2f counseling. *Post-hoc* analysis revealed that participants who would be interested in learning about both types of counseling (M = 21.28, SD = 4.40) perceived a greater value in online counseling in comparison to participants who would only be interested in learning more about f2f counseling and (M = 17.35, SD = 4.34), p = .001 and participants who would not be interested in learning about either types of counseling (M = 17.56, SD = 5.14), p = .012. As the significant *F*-test did not include participants who would be interested in learning more about online counseling, these variables did not yield any online counseling target groups. Results of these analyses are given in Tables 11 and 12.

Table 11

ANOVA Results for Perceived Value of Online Counseling (OC-V) by Demographic and Counseling Related Variables

Variables	df_1	df_2	F	p	η^2
Age	4	118	1.608	.117	.05
Sexual orientation	3	118	.709	.549	.02
Previous counseling experience	6	118	.550	.769	.03
Interest in learning about online and f2f counseling	3	118	6.564	.001*	.15

* $p < .01$.
Note. A Tukey test was used for *post-hoc* analysis.

Table 12

ANOVA Results for Perceived Discomfort with Online Counseling (OC-D) by Demographic and Counseling Related Variables

Variables	df_1	df_2	F	p	η^2
Age	4	118	.497	.738	.02
Sexual orientation	3	118	.166	.919	.004
Previous counseling experience	6	118	.117	.983	.009
Interest in learning about online and f2f counseling	3	118	1.254	.294	.03

CHAPTER 6

DISCUSSION

The purpose of this study was to explore college students' knowledge of and interest in online counseling services and factors that might relate to use by college students. Results of the hypotheses and research questions provided partial support for belief in the perceived value and interest in online counseling by this sample of college students (N = 119). Consistent with the literature (e.g., Richards, 2009; Rochlen, Beretvas, & Zack, 2004), participants appeared to have neutral to marginally positive attitudes towards online counseling, an interest in various online services, and a desire to seek out additional knowledge about and/or experience with online counseling. Exploratory survey items also revealed important program development considerations for college counseling centers. Participants have specific preferences regarding the time they would be willing to wait for a counselor's email reply and interest in using more advanced technology. The possibility of addressing social anxiety concerns in online counseling was appealing to some participants and provides useful information about how online treatment may improve the quality of care for certain conditions.

Contrary to the stated hypothesis, no significant gender differences were identified regarding the belief in the perceived value and interest in online counseling. Men and women expressed nearly equal ratings in their perceived discomfort and value with online counseling (as measured by the OCAS scale) and potential use of online services if psychological support were sought. These findings are consistent with the

results of the OCAS scale reported by Rochlen, Beretvas, and Zack (2004). A possible explanation for these results relates to the emergence of online counseling as recently as the 1990s and the fact that not enough time has elapsed for gender differences to become evident. Another possible conclusion, also highlighted by Rochlen, Beretvas, and Zack (2004), is that gender differences do not exist as the more distant nature of online counseling decreases vulnerability thereby making online counseling more accessible. The lack of gender differences found in this study contradicts student use of online counseling at Trinity College in which females used online counseling disproportionately more than males when compared to the gender breakdown of f2f counseling services (Richards, 2009). This last finding suggests that online counseling parallels the gender breakdowns traditionally found in f2f counseling and that this new modality of treatment may not be an effective method to increase utilization of mental health services by men.

A key advantage of online counseling emphasized throughout the literature is the flexibility it offers for both clients and practicing clinicians (Leibert et al., 2006; Recupero & Harms, 2010; Richards, 2009). This study's results were consistent in that participants who reported conflicts in accessing the college counseling center also endorsed email online counseling as a good mental health alternative. These findings are comparable to the considerable student use of online services at Trinity College outside of the regular counseling center hours (Richards, 2009) and resembles the research of Leibert et al. (2006) in which participants rated "flexibility" as the second highest advantage of the modality after disinhibition. In contrast, ambivalence in the perceived value of online counseling with this subgroup of participants was also identified. No

significant differences were found for belief in the perceived value and expected discomfort of online counseling (as measured by the OCAS scale) between participants who were able and not able to access the college counseling center. This last finding suggests a lack of understanding regarding how online counseling may be useful and highlights the fact that interest in online services may not transfer to actual utilization if the value of such program is in question.

The results also indicated that weekly time spent on the internet for personal reasons is not an important factor regarding belief in the perceived value and interest in online counseling. This finding contrasts with previous research in which Leibert et al. (2006) determined that people who used the internet for more than 10 hours per week for personal reasons were more likely to seek online mental health services than individuals who used the internet less often. The results of this study most likely differ with Leibert et al. (2006) simply because more people are using the internet at the present time. More recently and consistent with the results of this study, Klein and Cook (2010) reported no significant differences in access to technology (e.g., home internet access, public internet access through cell phone/technology device, and video-conferencing) between participants who preferred internet-based mental health services in comparison to participants who preferred traditional f2f counseling. This evidence suggests that individuals who are interested in online counseling are not limited by technology and that other factors (e.g., availability of services, insufficient experience with the modality, and required out-of-pocket payment) may possibly be limiting the widespread dissemination of this treatment option.

Identifying possible correlations between general help-seeking behavior and belief in the perceived value of f2f counseling and online counseling is another method that has been used to examine interest in online counseling (Rochlen, Beretvas, & Zack, 2004). Consistent with the literature on f2f counseling (e.g., Deane & Todd, 1996), a strong and significant correlation (r = .50) emerged between general help-seeking attitudes (as measured by the ATSPPHS) and the perceived value of f2f counseling (as measured by the FC-V subscale). Interestingly, a much weaker but significant correlation (r = .18) was found between general help-seeking attitudes (as measured by the ATSPPHS) and belief in the perceived value of online counseling (as measured by the OC-V subscale). These contrasting correlational values are comparable to the results reported by Rochlen, Beretvas, and Zack (2004) (r = .43 to .64 between the ATSPPHS and FCAS and r = .15 to.30 between the ATSPPHS and the OCAS), and suggests that participants conceptualize the value of f2f counseling and online counseling differently. The most likely explanation for these findings, also highlighted by Leibert et al. (2006), is that certain qualities unique to online counseling, including increased client control and disinhibition, are not adequately assessed by current online counseling measures. The FCAS and OCAS are identical measures except for the phrase "face-to-face" is substituted with the word "online" for all statements on the OCAS. If online counseling specific survey items related to client control and disinhibition were incorporated into an online counseling scale general help-seeking behavior may correlate more positively with online counseling.

This study additionally investigated several variables with limited research including the use of expressive writing techniques, perceived client control in online counseling, whether online users would provide emergency contact information, and interest in using online counseling for social anxiety concerns. Drawing from the professional opinion of Suler (2010), this study sought to explore how an individual's current use of various writing style techniques (e.g., emoticons, parenthetical expressions, trailers, and expressive acronyms) may be related to interest in online counseling. No significant correlation was found between participants' interest in online counseling (as measured by the OC-V subscale) and use of writing style techniques, suggesting that ability to communicate effectively with an online counselor is not a factor in the belief in the perceived value of online counseling. Evaluation of these results within the context of other research is limited and anecdotal (e.g., Fenichel, 2010; Suler, 2010) but does question the notion that the modality requires a completely new skill set. It is likely that the use of social networking sites (e.g., Facebook and online dating sites) and the integration of email communication into everyday life has already provided potential clientele the necessary experience to communicate emotions through words or opinion. In terms of program development, this information indicates that the use of writing style techniques is not an efficient method to identify potential candidates for online counseling.

An important advantage of online counseling emphasized throughout the literature (e.g., Haas et al., 2008; Richards, 2009; Rochlen, Zack, & Speyer, 2006; Suler, 2010) is the potential for increased client control. To examine this concept several

survey items asked about participants' comfort with not seeing the counselor's face, if they thought writing versus talking was more self-reflective, if they thought they would be able to discuss their concerns more openly, and if they thought online counseling in comparison to f2f counseling would allow for greater client control (e.g., when to initiate contact, pace and parameter of self-disclosure, power differential between professional and client). This study found significantly higher mean ratings for the OC-V subscale by participants who believed online counseling permitted increased client control (with all four client control variables) in comparison to participants who felt more in control with f2f counseling. These findings are consistent with the research of Haas et al. (2008) and Richards (2009) and suggest that some individuals are especially attracted to and find value in online counseling because of the potential for increased client control. To assess perceptions of online counseling more accurately, it appears imperative that online counseling scales incorporate items that evaluate perceived client control in online modalities. A possible question might include "I would feel more comfortable and be able to express myself more openly in email online counseling versus face-to-face counseling." Lastly, these results suggest a possible target group for this treatment modality.

With over a 70% endorsement rate of several safety measures (e.g., accurate identification and emergency contact information, immediate f2f counseling session and immediate telephone counseling session), results from this study suggest that universities can ethically consider online services within the realm of college counseling centers. However, the fact that only 62.2% (n = 74) of participants endorsed that they would be

willing to provide their student identification number also indicates a level of concern regarding how entering treatment may impact confidentiality and/or academic standing. This uncertainty of how online services may impact privacy and educational goals was also noted by Haas et al. (2008) in an interactive web-based outreach suicide program. To increase the comfort level of the user, it appears students need confirmation that a goal of the college counseling center is to support students so that they can remain in school and to better understand the limitations of confidentiality. A method to facilitate this process may be to provide examples of common difficult college experiences in which a student may be advised to withdraw or consultation may be required (e.g., suicide attempt, failing a majority of classes, and current child abuse of a minor sibling).

Participants in this study also demonstrated considerable interest in using online counseling as a psychoeducational resource. Significant mean differences were found on the OC-V subscale by participants who expressed interest in reading posted emails between students and counselors and/or would be willing to post a personal interaction with a counselor in comparison to participants who did not endorse an interest in such a service, $d = .52$ and $d = .59$, respectively. These positive results mirror the experiences of such a forum at Trinity College and on the "Ciao" health website for adolescents (http://www.ciao.ch) (Michaud & Colom, 2003; Richards, 2009). Most notably, the results highlight how a psychoeducational forum may act as a stepped care approach and may improve the high student demand for counseling services. Both Michaud and Colom (2003) and Richards (2009) reported how posted responses provided an individual with possible solutions to their concerns or prompted an individual to seek additional support.

Within the context of a college counseling center, a psychoeducational forum may decrease counselors' case loads, provide another point of student contact, and be a good interim solution for student waitlists. The high percentage of participants who expressed a willingness to post their own interactions with a counselor in an online forum supports the viability of such a service.

In terms of specific conditions for which online counseling may be suitable, a substantial number of participants (n = 54) in this study expressed interest in utilizing online support for symptoms related to social anxiety. Participants who expressed interest in online counseling concerning a lack of friends or being shy/uncomfortable in social situations in comparison to participants who would not use online counseling for social anxiety displayed significantly higher ratings for belief in the perceived value of online counseling (as measured by the OCAS scale). These results are very promising given the increasing empirical support for online social anxiety programs (e.g., Andrews et al. 2011; Tillfors et al. 2008) and the low utilization of f2f counseling by individuals with social anxiety (Kessler, 2003). Most importantly, the results on social anxiety indicated a willingness to use online counseling as a stepped care approach. Out of the participants who would engage in online counseling for social difficulties, 67% (n = 36) stated they could consider using email and f2f counseling concurrently and 81% (n = 44) were open to the idea of seeking f2f counseling if they had a positive experience with online counseling. These findings question and provide a possible solution to the concerns raised by Leibert et al. (2006) regarding how clients may not apply interpersonal skills learned over the internet to everyday interactions. To optimize

treatment within a college setting, students could first start with an online social anxiety program that then built up to a social skills group.

Strengths and limitations

While several hypotheses were inconclusive, the current study exhibits noteworthy strengths. For example, the use of three measures to assess general help-seeking behavior (ATSPPHS), perceptions of f2f counseling (FCAS), and perceptions of online counseling (OCAS), provided a more complete understanding of how online counseling may fit into current f2f counseling treatment standards and replicates the work of Rochlen, Beretvas, and Zack (2004), completed eight years ago. Frequent evaluation of online services is essential due to the rapid progression of technology and new ways people are integrating the internet into everyday life. Another strength of the study was the inclusion of a brief description of online counseling and how it compares to f2f counseling as previous research has demonstrated a general lack of understanding and/or exposure to online counseling by sampled participants, some of whom were of college age (Klein & Cook, 2010). Due to the current fiscal constraints and high student demands for mental health services on college campuses, a final strength of the current study was its focus on how online counseling may be applicable at the university level. The development of several survey items by the researcher provided a way to examine student interests and preferences if online services were offered by a college counseling center and encourages discussion about how to best meet student needs.

Several limitations exist in the present study as well. First, participants were a sample of convenience and consisted primarily of undergraduates from one university.

An attempt to broaden the range of respondents was made by posting the survey to several websites frequently visited by college students, but that only generated an additional 27 participants. Likewise, it is important to note that the participants from HSU received the same amount of credit for their participation in the study regardless of how long it took them to complete the questionnaires.

A second limitation relates to the nonsignificant findings found for hypothesis #4 (general help-seeking attitudes, perceived value with f2f, and perceived value with online counseling would all correlate positively) and the low internal consistency reliability coefficient found for the ATSPPHS scale. A likely explanation for these discrepant findings relates to the fact that the majority of participants took approximately 15-20 minutes to complete a fairly lengthy survey. A number of participants might have answered the survey too quickly at the expense of thoroughly reading and/or considering the content of each question.

The chosen research design introduces another limitation as the constructs were measured by a single survey item. For example, participants were asked to determine whether online counseling would be a good mental health alternative by the following statement (survey item #58): "An email online counseling program through the college counseling center would be a good alternative for meeting my mental health needs." Constructs measured by a single survey item considerably increases the chances for error (e.g., not reading the question thoroughly, testing fatigue) and the difficulty in capturing the complete construct being assessed.

Finally, it is important to note that this study only surveyed participants' *potential* interest in and utilization of online services which does not necessarily translate to actual future behavior. In context of the theory of planned behavior (Ajzen, 1985), this study adequately assessed possible motivational factors for seeking online counseling (e.g., perceived value of online counseling as measured by the OCAS and researcher developed survey items) but did not explicitly assess participants' volitional control in utilizing online services. Therefore, potential interest in online counseling is not likely to translate to actual behavior for participants who found value in online counseling but did not believe they had the personal will to actually utilize such services.

Clinical implications

Though this study has several inherent limitations, the findings are promising and can be applied to clinical settings in a variety of ways. First, paralleling the results of Klein and Cook (2010), the data demonstrate that online counseling is still a very new form of mental health treatment that is not yet widely accepted or understood. Participants' belief in the perceived value of online counseling was lower than f2f counseling and distinctly different. Although interpreting how individuals perceive f2f counseling and online counseling differently is beyond the scope of this study, the results indicate that more exposure and education about what online counseling entails is needed for potential users. At the college level, an online counseling seminar could be incorporated into new student orientation with additional tutorials found on the college counseling center website. This outreach effort would not only make online counseling

easier to use but would also normalize the possible need for counseling when in college because it is a time of transition with many unknowns and first time experiences.

Second, the findings indicate that despite some uncertainty, young adults have a fairly positive view of online counseling and are especially attracted to the flexibility and increased client control it offers. Sampled college students also displayed considerable interest in using online counseling as a psychoeducational tool, when access to the college counseling center is limited, and for issues in which seeking f2f counseling may be too challenging. Ultimately, the results suggest that online counseling is a worthwhile endeavor for college counseling centers to seriously consider while providing useful program development information.

Directions for future research

As the demand for online mental health services increases, it will be imperative that future studies continue to explore public attitudes and people most likely to be interested in online counseling. For example, common variables such as demographic information, general help-seeking attitudes, and past experiences with f2f counseling that have been useful to identify possible candidates for f2f counseling (Gonzalez, Alegría, Prihoda, Copeland, & Zeber, 2011; Silva & Blay, 2010), did not yield any viable target groups for online counseling in this study. A greater understanding is needed of the variables unique to internet modalities (e.g., lack of f2f cues, greater self-expression, and user generated psychoeducational resources) that attract and/or discourage people from seeking online support. Another key question is why and how people conceptualize f2f counseling and online counseling so differently. Answers to this question will most

likely generate several hypotheses as to why people, including college students, are hesitant to engage in this new modality of treatment. To address these research areas, it is likely additional measures need to be created that get at the core value of online counseling including disinhibition, anonymity, and increased client control. Finally, information can also be gained from professionals in the field and clients who used online counseling. Online mental health support is still in a trial and error phase of development and many questions remain. The results of this study however, are promising in that it demonstrates considerable interest and curiosity about the new treatment modality and shows that online counseling is finding its place within the mental health field.

REFERENCES

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 179-211.

American Counseling Association (2005). *ACA Code of Ethics*. Retrieved from http://www.counseling.org/resources/codeofethics/TP/home/ct2.aspx

American Mental Health Counselors Association. (2010). *American Mental Health Counselors Association code of ethics.* Retrieved October 17, 2010 from Retrieved from https://www.amhca.org/assets/news/AMHCA_Code_of_Ethics_2010_w_pagination_cxd_51110.pdf

American Psychological Association. (2010). *American Psychological Association ethical principles of psychologists and code of conduct 2010 amendments.* Retrieved from http://www.apa.org/ethics/code/index.aspx

An, L.C., Betzner, A., Schillo, B., Luxenberg, M.G., Christenson, M., Wendling, A.,... Kavanaugh, A. (2010). The comparative effectiveness of clinic, work-site, phone, and web-based tobacco treatment programs. *Nicotine & Tobacco Research, 12,* 989-996. doi: 10.1093/ntr/ntq133

Andrews, G., Davies, M., & Titov, N. (2011). Effectiveness randomized controlled trail of face to face versus internet cognitive behavior therapy for social phobia. *Australian and New Zealand Journal Psychiatry, 45,* 337-340.

Barak, A., Hen, L., Boniel-Nissim, M., & Shapira, N. (2008). A comprehensive review and a meta-analysis of the effectiveness of internet-based psychotherapeutic interventions. *Journal of Technology in Human Services, 26*, 109-160. doi: 10.1080/15228830802094429

Barak, A., Klein, B., & Proudfoot, J. (2009). Defining internet-supported therapeutic interventions. *Annals of Behavioral Medicine, 38*, 4-17. doi: 10.1007/s12160-009-9130-7

Benton, S.A., Robertson, J.M., Tseng, W., Newton, F.B., & Benton, S.L. (2003). Changes in counseling center client problems across 13 years. *Professional Psychology: Research and Practice, 34*, 66-72. doi: 10.1037/0735-7028.34.1.66

California State University Select Committee on Mental Health. (2010). *Select committee on mental health report to the CSU board of trustees.* Retrieved from http://www.calstate.edu/bot/agendas/may10/edu-policy.pdf

Cartreine, J.A., Ahern, D.K., & Locke, S.E. (2010). A roadmap to computer-based psychotherapy in the United States. *Harvard Review of Psychiatry, 18*(2), 80-95. doi: 10.3109/10673221003707702

Chisholm, M.S. (1998). Colleges need to provide early treatment of students' mental illnesses. *The Chronicle of Higher Education, 44*(36B), 6-7.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.

Cooke, R., Bewick, B.M., Barkham, M., Bradley, M., Audin, K. (2006). Measuring, monitoring, and managing the psychological well-being of first year university students. *British Journal of Guidance & Counseling, 34*, 505-515. doi: 10.1080/03069880600942624

Deane, F.P., & Todd, D.M. (1996). Attitudes and intentions to seek professional psychological help for personal problems or suicidal thinking. *Journal of college student psychotherapy, 10,* 45-59. doi: 10.1300/J035v10n04_06

Derrig-Palumbo, K. (2010). Using chat and instant message (IM) to conduct a therapeutic relationship. In Anthony, K., Nagel, D.M., & Goss, S. (Eds.), *The use of technology in mental health [applications, ethics and practice]* (pp. 15-28). Springfield, IL: Charles C Thomas Publisher, LTD.

Fenichel, M.A. (2010). Online behavior, communication, and experience. In R. Kraus, J.S. Zack, & G. Stricker (Eds.), *Online counseling: A handbook for mental health professionals* (2nd ed.) (pp.3-20). San Diego, CA: Elsevier Academic Press.

Fischer, E.H., & Farnia, A. (1995). Attitudes toward seeking professional psychological help: A shortened form and considerations for research. *Journal of College Student Development, 36*, 368-373.

Fischer, E.H., & Turner, J.L. (1970). Orientations to seeking professional help: Development and research utility of an attitude scale. *Journal of Consulting and Clinical Psychology*, *35*, 79-90.

Freeman, E., Barker, C., & Pistrang, N. (2008). Outcome of an online mutual support group for college students with psychological problems. *Cyber Psychology and Behavior, 11*, 591-593. doi: 10.1089/cpb.2007.0133

Gallagher, R. (2010). *National survey of counseling center directors 2010*. Alexandria, VA: International Association of Counseling Services, Inc. Retrieved from http://www.iacsinc.org/NSCCD%202010.pdf

Gonzalez, J.M., Alegría, M., Prihoda, T.J., Copeland, L.A., & Zeber, J.E. (2011). How the relationship of attitudes toward mental health treatment and service use differs by age, gender, ethnicity/race and education. *Social Psychiatry and Psychiatric Epidemiology, 46*, 45-57. doi: 10.1007/s00127-009-0168-4

Grohol, J.M. (2004). Online counseling: A historical Perspective. In R. Kraus, J.S. Zack, & G. Stricker (Eds.), *Online counseling: A handbook for mental health professionals* (pp.51-68). San Diego, CA: Elsevier Academic Press.

Gulec, H., Mezei, A., Kohls, E., Túry, F., Moessner, M., & Bauer, S. (2011). Internet-based maintenance treatment for patients with eating disorders. *Professional Psychology: Research and Practice, 42*, 479-486. doi: 10.1037/a0025806

Haas, A., Koestner, B., Rosenberg, J., Moore, D., Garlow, S.J., Sedway,… Nemeroff, C.B. (2008). An interactive web-based method of outreach to college students at risk for suicide. *Journal of American College Health, 57*(1), 15-22.

Hanley, T., & Reynolds, D.J. (2009). Counseling psychology and the internet: A review of the qualitative research into online outcomes and alliances within text-based therapy. *Counseling Psychology Review, 24*(2), 4-13.

Health and Human Services Regulation on Telehealth, 42, C.F.R. § 410.78 (2010).

Hutton, H.E., Wilson, L.M., Apelberg, B.J., Tang, E.A., Odelola, O., Bass, E.B., & Chander, G. (2011). A systematic review of randomized controlled trials: Web-based interventions for smoking cessation among adolescents, college students, and adults. *Nicotine & Tobacco Research, 13*, 227-238. doi: 10.1093/ntr/ntq252

International Society for Mental Health Online (2011). *Assessing a person's suitability for online counseling.* Retrieved from https://www.ismho.org/therapy_suitability_assessment.asp

Kessler, R.C. (2003). The impairments caused by social phobia in the general population: Implications for interventions. *Acta Psychiatr Scand, 108*, 19-27.

Khasanshina, E.V., Wolf, W.L., Emerson, E.N., & Stachura, M.E. (2008). Counseling center-based tele-mental health for students at a rural university. *Telemedicine and e-Health, 14*(1), 35-41. doi: 10.1089/tmj.2006.0038

Klein, B., & Cook, S. (2010). Preferences for e-mental health services amongst an online Australian sample. *Electronic Journal of Applied Psychology, 6*(1), 27-38.

Klein, B., Mitchell, J., Abbot, J., Shandley, K., Austin, D., Gilson, K.,… Redman, T. (2010). A therapist-assisted cognitive behavior therapy internet intervention for posttraumatic stress disorder: Pre-, post-and 3-month follow-up results from an open trial. *Journal of Anxiety Disorders, 24*, 635-644. doi: 10.1016/j.janxdis.2010.04.005

Kraus, R. (2010). Ethical issues in online counseling. In R. Kraus, J.S. Zack, & G. Stricker (Eds.), *Online counseling: A handbook for mental health professionals* (2nd ed.) (pp.85-106). San Diego, CA: Elsevier Academic Press.

Lambert, M. & Ogles, B. (2004). The efficacy and effectiveness of psychotherapy. In M. Lambert (Ed.), *Bergin and Garfield's handbook of psychotherapy and behavior change* (5th ed., pp.139-193). New York: John Wiley.

Leibert, T., Archer, J., Munson, J., & York, G. (2006). An exploratory study of client perceptions of internet counseling and the therapeutic alliance. *Journal of Mental Health Counseling, 28*(1), 69-83.

Lindenberg, K., Moessner, M., Harney, J., McLaughlin, O., & Bauer, S. (2011). E-health for individualized prevention of eating disorders. *Clinical Practice & Epidemiology in Mental Health, 7,* 74-83.

McMurtry, S.L., & Hudson, W.W. (2000). The client satisfaction inventory: Results of an initial validation study. *Research on Social Work Practice, 10,* 644-663.

Michaud, P., & Colom, P. (2003). Implementation and evaluation of an internet health site for adolescents in Switzerland. *Journal of Adolescent Health, 33*, 287-290. doi: 10.1016/S1054-139X(03)00181-2

Mowbray, C.T., Maniberg, J.M., Stein, C.H., Kopels, S., Curlin, C., Megivern, D... Lett, R. (2006). Campus mental health services: Recommendations for change. *American Journal of Orthopsychiatry*, *76*, 226-237. doi: 10.1037/0002-9432.76.2.226

Murphy, L., & Mitchell, D.L. (1998). When writing helps to heal: E-mail as therapy. *British Journal of Guidance and Counseling, 26,* 25-32.

Murphy, L.J., Parnass, P. Mitchell, D.L., Hallett, R., Cayley, P., & Seagram, S. (2009). Client satisfaction and outcome comparisons of online and face-to-face counseling methods. *British Journal of Social Work, 39,* 627-640. doi: 10.1093/bjsw/bcp041

Proudfoot, J.G., Parker, G.B., Benoit, M., Manicavasagar, V., Smith, M.,& MCrim, A.G. (2009). What happens after diagnosis? Understanding the experiences of patients with newly-diagnosed bipolar disorder. *Health Expectations, 12,* 120-129. doi: 10.1111/j.1369-7625.2009.00541.x

Recupero, P.R., & Harms, S. (2010). Using email to conduct a therapeutic relationship. In Anthony, K., Nagel, D.M., & Goss, S. (Eds.), *The use of technology in mental health [applications, ethics and practice]* (pp. 3-14). Springfield, IL: Charles C Thomas Publisher, LTD.

Richards, D. (2009). Features and benefits of online counseling: Trinity college online mental health community. *British Journal of Guidance & Counseling, 37,* 231-242. doi: 10.1080/03069880902956975

Rochlen, A.B., Beretvas, S.N., Zack, J.S. (2004). The online and face-to-face counseling attitudes scales: A validation study. *Measurement and Evaluation in Counseling and Development 37,* 95-111.

Rochlen, A.B., Land, L.N., & Wong, Y.J. (2004). Male restrictive emotionality and evaluations of online versus face-to-face counseling. *Psychology of Men & Masculinity, 5,* 190-200. doi: 10.1037/1524-9220.5.2.190

Rochlen, A.B., Zack, J.S., & Speyer, C. (2004). Online therapy: Review of relevant definitions, debates, and current empirical support. *Journal of Clinical Psychology, 60,* 269-283. doi: 10.1002/jclp.10263

Ruscio, A.M., Brown, T.A., Chiu, W.T., Sareen, J., Stein, M.B., & Kessler, R.C. (2008). Social fears and social phobia in the USA: Results from the National Comorbidity Survey Replication. *Psychological Medicine, 38,* 15-28. doi: 10.1017/S0033291707001699

Ryan, M.L., Shochet, I.M., & Stallman, H.M. (2010). Universal online interventions might engage psychologically distressed university students who are unlikely to seek formal help. *Advances in Mental Health, (9)*1, 73-83.

SAHAR. (n.d.). Retrieved from http://www.sahar.org.il

Samaritans. (n.d.). Retrieved from http://www.samaritans.org/

Samaritans. (2010). *Information resource pack 2010.* Retrieved from http://www.samaritans.org/pdf/Samaritans%20Information%20Resource%20Pack%202010.pdf

Silva, P.F., & Blay, S.L. (2010). Prevalence and characteristics of outpatient psychotherapy use. *The Journal of Nervous and Mental Disease, 198,* 783-789.

Sloan, D.M., Gallagher, M.W., Feinstein, B.A., Lee, D.J., & Pruneau, G.M. (2011). Efficacy of telehealth treatments for posttraumatic stress-related symptoms: a meta-analysis. *Cognitive Behavior Therapy, 40,* 111-125. doi: 10.1080/16506073.2010.550058

Stofle, G.S. (2001). Choosing an online therapist. Harrisburg, PA: White Hat Communications.

Storrie, K., Ahern, K., & Tuckett, A. (2010). A systematic review: Students with mental health: A growing problem. *International Journal of Nursing Practice, 16,* 1-6. doi: 10.1111/j.1440-172X.2009.018.01813.x

Suler, J. (2010).The psychology of text relationships. In R. Kraus, J.S. Zack, & G. Stricker (Eds.), *Online counseling: A handbook for mental health professionals* (2nd ed.) (pp.3-18). San Diego, CA: Elsevier Academic Press.

Tillfors, M., Carlbring, P. Furmark, T., Lewenhaupt, S., Spak, M., Eriksson, A... & Andersson, G. (2008). Treating university students with social phobia and public speaking fears: Internet delivered self-help with or without live group exposure sessions. *Depression and Anxiety, 25,* 708-717. doi: 10.1002/da.20416

Tsan, J.Y., & Day, S.X. (2007). Personality and gender as predictors of online counseling use. *Journal of technology in human services, 25,* 39-55. doi: 10.1300/J017v25n03_03

University of California Office of the President. (2006). *Student health committee final report.* Retrieved from http://www.universityofcalifornia.edu/regents/regmeet/sept06/303attach.pdf

University of California, University Affairs. (2008). *Facts about the University of California*: *Student mental health.* Retrieved from http://www.universityofcalifornia.edu/news/factsheets/mentalHealthFacts_0308.pdf

Vernmark, K., Lenndin, J., Bjärehed, J., Carlsson, M., Karlsson, J., Öberg, J… Andersson, G. (2010). Internet administered guided self-help versus individualized e-mail therapy: A randomized trial of two versions of CBT for major depression. *Behavior Research and Therapy*, *48,* 368-376. doi: 10.1016/j.brat.2010.01.005

Yahpe, J., & Speyer, C. (2010). Text-based online counseling: Email. In R. Kraus, J.S. Zack, & G. Stricker (Eds.), *Online counseling: A handbook for mental health professionals* (2nd ed.) (pp.3-18). San Diego, CA: Elsevier Academic Press.

Zack, J.S. (2010). Legal issues for online counseling. In R. Kraus, J.S. Zack, & G. Stricker (Eds.), *Online counseling: A handbook for mental health professionals* (2nd ed.) (pp.85-106). San Diego, CA: Elsevier Academic Press.

APPENDIX A

Script for Research Assistant

This script will be read after a participant enters the lab:

To begin, thank you for your time and willingness to participate in this study conducted by Chloe Brown, a graduate student in the HSU masters in counseling program. [The PI who is conducting the study that day will then introduce her/himself.] Psychological research is important because it often aids researchers and clinicians in developing new interventions for better therapeutic outcomes. Your participation in this study is important to psychological research as the results of this study will contribute to scientific literature. Participation in the study is completely voluntary and you can withdraw from the study without penalty at any time. You must be 18 years of age or older for us to use your data in this study. Participation in this study is and will remain completely anonymous so please do not put your name on any of the questionnaires or forms. Upon completing the questionnaire please detach the last page of the packet to take with you. If you are interested in the results of this study you may contact Chloe Brown at a later date for more information. Do you have any questions?

APPENDIX B

Participant Instructions

Participation in this study **is completely voluntary** and therefore you can withdraw from the study at any point without penalty. By completing the following questionnaires it is assumed that you are providing your consent to participate. Your **participation in this study will remain completely anonymous** and therefore please **do not put your name on any of the questionnaires**. In view of the fact that some of the information being gathered is possibly of a personal nature, there is a potential risk that you may experience some negative feelings. As a result, upon completion of the questionnaires **please detach the last page of this packet and take it with you**. This page includes information about local counseling services available to students as well as other community members. We estimate that the questionnaires will take you approximately 30-45 minutes to fill out.

If you have any questions, please contact Chloe Brown either by phone at: (831) 917-0379, or by email at: cbb26@humboldt.edu, or the supervising professor, Dr. Beth Eckerd either by phone at: (707) 826-3757, or by email at: beth.eckerd@humboldt.edu.

Thank you very much for your participation.

APPENDIX C

Online Counseling Survey

Introduction to Online Counseling

Counseling is a helping relationship that is different from just talking with a family member or a friend and occurs when a person talks with a trained mental health professional (e.g., counselor). Counseling helps people to develop the skills to better confront and cope with uncertainties and/or conflicts by creating a non-judgmental and collaborative environment between the counselor and his/her client. Counseling can be for one person or a group (e.g., couple or family) and can be delivered through a variety of methods including face-to-face dialogue, group work, telephone, email, and written material.

The following terms are used throughout the survey. Please carefully read the all terms and their corresponding definition before continuing.

1. Asynchronous online counseling: a form of online counseling where the counselor and client are not communicating to each other at the same time. When taking part in this form of online counseling, the counselor and client would most likely communicate through email or on a message board.
2. Synchronous online counseling: a form of online counseling where the counselor and client have access to a computer and written or spoken dialogue occurs in "real time." Common examples of this form of online counseling might include Skype, audio-video conferencing, and instant messaging.
3. Psychotropic medication: Drugs that are prescribed for the purpose of altering behavior and/or treating mental disorders. Common examples include anti-depressants, anti-anxiety, and anti-psychotic medications.

Please read each question carefully as the questions frequently change between face-to-face and online counseling methods. There are no "wrong" answers, and the only "right" answer is the one you honestly feel or believe. Thank you for your participation.

INSTRUCTIONS: For the following six statements, please circle the ONE best answer that applies to you.

1. Age
   a. 18-19
   b. 20-21
   c. 22-23
   d. 24-25
   e. 26 and older

2. Gender
   a. Male
   b. Female
   c. Transgender
   d. Other

3. Ethnicity
   a. African American
   b. Hispanic/Latino
   c. Native American/Alaska Native
   d. White/European-American
   e. Asian American
   f. Multiracial
   g. Other

4. Sexual orientation
   a. Heterosexual
   b. Bisexual
   c. Homosexual
   d. Other

5. Class rank
   a. Freshman
   b. Sophomore
   c. Junior
   d. Senior
   e. Graduate

6. Major
    a. Arts and humanities (e.g., English, journalism, philosophy, language, art, music, and theatre)
    b. Social sciences (e.g., political science, communications, anthropology, psychology, sociology, and economics)
    c. Natural sciences (e.g., biology, marine science, natural resources, chemistry, physics, mathematics, and computer science)
    d. Undecided

INSTRUCTIONS: For the following two statements, please check all boxes that may apply.

7. When receiving counseling, it is the counselor's responsibility to set the boundaries for his/her client's safety. If I were to engage in **online** counseling I would agree to:

☐ Provide accurate identification and emergency contact information.

☐ Provide my student identification number.

☐ Agree to an immediate face-to-face counseling session if my counselor thought it was necessary.

☐ Agree to an immediate telephone counseling session if my counselor thought it was necessary.

☐ Call a mental health hotline if my emotional condition worsened and my personal safety became at risk.

8. I have engaged in these alternatives to **face-to-face** counseling:

☐ Telephone counseling

☐ Asynchronous contact (e.g., email)

☐ Synchronous contact (e.g., instant messaging, video conferencing)

☐ No experience with alternative counseling

INSTRUCTIONS: For the following two statements, please circle the ONE best answer that applies to you.

9. I have engaged in **face-to-face** individual counseling over my entire life for (overall length of time during lifespan, does not have to be over a consecutive time period):
    a. Never
    b. 1-6 sessions
    c. 7-12 sessions
    d. 13-18 sessions
    e. 19 sessions to 1 year of counseling
    f. 1-2 years of counseling
    g. More than 2 years

10. I am interested in learning more about:
    a. **Face-to-face** counseling
    b. **Online** counseling (e.g., email, instant messaging, video conferencing)
    c. Both types of counseling
    d. Neither

INSTRUCTIONS: Below are 4 statements with which you may agree or disagree. Using the 0-1 scale below, indicate your agreement with each item by placing the appropriate number in the line preceding that item. Please be open and honest in your responding.

0 = Disagree
1 = Agree

_____11. If I were to seek counseling services, it would be difficult for me to discuss my problem(s) with a face-to-face counselor.

_____12. If I were to seek counseling services, it would be difficult for me to discuss my problem(s) with an online counselor.

_____13. I have been prescribed psychotropic medication by my physician before (e.g., anti-depressants, anti-anxiety, and anti-psychotic medications).

_____14. I am currently taking psychotropic medication (e.g., anti-depressants, anti-anxiety, and anti-psychotic medications).

INSTRUCTIONS: Indicate your agreement with the following 10 statements on a 0-3 scale, where 0 = strongly disagree, 1= disagree, 2 = agree, and 3 = strongly agree

15. If I believed I was having a mental breakdown, my first inclination would be to get professional attention.	1	2	3	4	5	6
16. The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.	1	2	3	4	5	6
17. If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in psychotherapy.	1	2	3	4	5	6
18. There is something admirable in the attitude of a person who is willing to cope with his or her conflicts and fears *without* resorting to professional help.	1	2	3	4	5	6
19. I would want to get psychological help if I were worried or upset for a long period of time.	1	2	3	4	5	6
20. I might want to have psychological counseling in the future.	1	2	3	4	5	6
21. A person with an emotional problem is not likely to solve it alone; he or she *is* likely to solve it with professional help.	1	2	3	4	5	6
22. Considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me.	1	2	3	4	5	6
23. A person should work out his or her own problems; getting psychological counseling would be a last resort.	1	2	3	4	5	6

24. Personal and emotional troubles, like many things, tend to work out by themselves.	1	2	3	4	5	6

The next two parts ask about your attitudes toward seeking counseling through either of two methods: (a) online counseling (where you would interact with a counselor using the internet) or (b) face-to-face counseling (where you would go to a counselor's office in person). For the purpose of this study, consider having your choice of corresponding with a counselor through emails or through an online "real time" text chat arrangement such as Skype. A client using email counseling services would typically submit questions or comments to a counselor and would receive a response within a short period of time (typically 1-2 days). With online "real time" chat, you would have a set time each week when you would meet in a private secure "chat room" to discuss concerns. Please read the questions carefully because the sets of questions are similar. However, the first 10 pertain to online counseling and the last 10 pertain to face-to-face counseling. There are no "wrong" answers, and the only right ones are the ones you honestly feel or believe.

INSTRUCTIONS: Indicate your agreement with the following 10 statements on a 1-6 scale, where 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, and 6 = strongly agree

25. Using online counseling would help me learn about myself.	1	2	3	4	5	6
26. If a friend had personal problems, I might encourage him or her to consider online counseling.	1	2	3	4	5	6
27. I would confide my personal problems with an online counselor.	1	2	3	4	5	6
28. It could be worthwhile to discuss my personal problems with an online counselor.	1	2	3	4	5	6
29. If online counseling were available at no charge, I would consider trying it.	1	2	3	4	5	6
30. If I were having a personal problem, seeking help with an online counselor would be the last option I would consider.	1	2	3	4	5	6
31. I would feel uneasy discussing emotional problems with an online counselor.	1	2	3	4	5	6
32. I would dread explaining my problems to an online counselor.	1	2	3	4	5	6
33. I think it would take a major effort for me to schedule an appointment with an online counselor.	1	2	3	4	5	6
34. I would be afraid to discuss stressful events with an online counselor.	1	2	3	4	5	6

INSTRUCTIONS: Indicate your agreement with the following 10 statements on a 1-6 scale, where 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, and 6 = strongly agree

35. Using face-to-face counseling would help me learn about myself.	1	2	3	4	5	6
36. If a friend had personal problems, I might encourage him or her to consider face-to-face counseling.	1	2	3	4	5	6
37. I would confide my personal problems with a face-to-face counselor.	1	2	3	4	5	6
38. It could be worthwhile to discuss my personal problems with a face-to-face counselor.	1	2	3	4	5	6
39. If face-to-face counseling were available at no charge, I would consider trying it.	1	2	3	4	5	6
40. If I were having a personal problem, seeking help with a face-to-face counselor would be the last option I would consider.	1	2	3	4	5	6
41. I would feel uneasy discussing emotional problems with a face-to-face counselor.	1	2	3	4	5	6
42. I would dread explaining my problems to a face-to-face counselor.	1	2	3	4	5	6
43. I think it would take a major effort for me to schedule an appointment with a face-to-face counselor.	1	2	3	4	5	6
44. I would be afraid to discuss stressful events with a face-to-face counselor.	1	2	3	4	5	6

INSTRUCTIONS: Below are 6 statements with which you may agree or disagree. Using the 0-1 scale below, indicate your agreement with each item by placing the appropriate number in the line preceding that item. Please be open and honest in your responding.

0 = Disagree
1 = Agree

_____45. I like sending e-mails.

_____46. I think it is possible to communicate feelings through e-mail messages.

_____47. I have the computer skills necessary to communicate with a counselor by e-mail.

_____48. I like chatting online in "real time" (e.g., instant messaging, video conferencing).

_____49. I think it is possible to communicate feelings by chatting online in "real time" (e.g., instant messaging, video conferencing).

_____50. I have the computer skills necessary to communicate with a counselor through an online "real time" text chat environment.

INSTRUCTIONS: Please respond to the following statement using the 1-5 scale below.

1= < 1 hour
2 = 1-3 hours
3 = 4-6 hours
4 = 7-9 hours
5 = 10 hours or more

51. I use the internet for personal use (e.g., facebook, youtube, email, instant messaging, and surfing the web) for_____ hours per week.

INSTRUCTIONS: For the following four statements, please check all boxes that may apply.

52. For what issue(s) have you previously sought or are you currently seeking individual face-to-face counseling?

- ☐ Relationship break-up
- ☐ Depression
- ☐ Anxiety
- ☐ Questions/concerns about alcohol or drug use
- ☐ Moodiness/emotions feel like a roller coaster
- ☐ Eating too much and/or too little
- ☐ Concerns about weight or appearance
- ☐ Not having close friends
- ☐ Being shy or uncomfortable in social situations
- ☐ Death of a family member or friend
- ☐ Legal or judicial concerns
- ☐ Academic concerns (e.g., grades, major, study habits)
- ☐ Fantasies about hurting someone else physically
- ☐ Hurting someone else physically
- ☐ Unwanted sexual experiences
- ☐ Questions/concerns about sexuality
- ☐ Questions/concerns about gender identity
- ☐ Relationship concerns (e.g., with parent/s, partner, friends)
- ☐ Financial concerns (e.g., budgeting, depending on others and no enough money for education)
- ☐ Chronic physical and/or mental health condition

53. For what issue(s) might you seek **email online counseling**?

- ☐ Relationship break-up
- ☐ Depression
- ☐ Anxiety
- ☐ Questions/concerns about alcohol or drug use
- ☐ Moodiness/emotions feel like a roller coaster
- ☐ Eating too much and/or too little
- ☐ Concerns about weight or appearance
- ☐ Not having close friends
- ☐ Being shy or uncomfortable in social situations
- ☐ Death of a family member or friend
- ☐ Legal or judicial concerns
- ☐ Academic concerns (e.g., grades, major, study habits)
- ☐ Fantasies about hurting someone else physically
- ☐ Hurting someone else physically
- ☐ Unwanted sexual experiences
- ☐ Questions/concerns about sexuality
- ☐ Questions/concerns about gender identity
- ☐ Relationship concerns (e.g., with parent/s, partner, friends)
- ☐ Financial concerns (e.g., budgeting, depending on others and no enough money for education)
- ☐ Chronic physical and/or mental health condition

54. To help me communicate through writing when I am online, I currently use:

- ☐ Emoticons (e.g., ☺ and ☹)
- ☐ Voice accentuations (e.g., *ANGER* to indicate a vocal emphasis)
- ☐ Trailers (e.g., as…, uh…, and um… to indicate a hesitation or break in one's train of thought)
- ☐ Parenthetical expressions (e.g., sigh or "not sure how I feel" to indicate body language or thoughts and feelings)
- ☐ Acronyms (e.g., lol for "laugh out loud")
- ☐ Figurative language: when metaphors, symbols, and expressions are used with a meaning that is different from the literal interpretation to make a specific linguistic point. For example, someone might write 'the sky is angry' in reference to the build-up of pressure in the air just before a storm to express the anger/frustration that they are currently experiencing.

55. To help me communicate to an **online counselor** through writing, I might be interested in learning more about: (check all that apply)

- ☐ Emoticons (e.g., ☺ and ☹)
- ☐ Voice accentuations (e.g., *ANGER* to indicate a vocal emphasis)
- ☐ Trailers (e.g., as…, uh…, and um… to indicate a hesitation or break in one's train of thought)
- ☐ Parenthetical expressions (e.g., sigh or "feeling unsure right now" to indicate body language or thoughts and feelings)
- ☐ Acronyms (e.g., lol for "laugh out loud")
- ☐ Figurative language: when metaphors, symbols, and expressions are used with a meaning that is different from the literal interpretation to make a specific linguistic point. For example, someone might write 'the sky is angry' in reference to the build-up of pressure in the air just before a storm to express the anger/frustration that they are currently experiencing.

INSTRUCTIONS: Below are 14 statements with which you may agree or disagree. Using the 0-1 scale below, indicate your agreement with each item by placing the appropriate number in the line preceding that item. Please be open and honest in your responding.

0 = Disagree
1 = Agree

_____56. I am available to seek services from the college counseling center during their regular hours of operation (Mon-Fri 9am-5pm).

_____57. I have physical disabilities, language barriers, or access limitations that would prevent me from accessing in-person services at the college counseling center.

_____58. An **email online** counseling program through the college counseling center would be a good alternative for meeting my mental health needs.

_____59. Assuming my identifying information is removed, I would agree to have my email message to a counselor and his/her response posted on an online webpage for other students to view.

_____60. Not being able to see my counselor's facial expression(s) when reading my email message would be okay.

_____61. Writing versus talking about my thoughts and feelings would allow me to be more self-reflective.

_____62. I would feel more comfortable and be able to express myself more openly in **email online** counseling versus **face-to-face** counseling.

_____63. I would feel more in control of my counseling experience in **email online** counseling versus **face-to-face** counseling (e.g., when to initiate contact, pace and parameter of self-disclosure, power differential between professional and client).

_____64. I would save and likely review the email exchange between my counselor and myself, more than once.

_____65. I would be interested in using **email online** counseling as psychoeducational tool by reading the other students' email communications (with identifying information removed) on an online forum that is accessible to all students.

_____66. I would be interested in **email online** counseling while also attending weekly **face-to-face** counseling.

_____67. If I had a good experience with **email online** counseling I would likely seek **face-to-face** services in the future.

_____68. I would use **email online** counseling if I decided to seek psychological support.

_____69. I would feel anxious if a counselor did not reply to my message right away.

INSTRUCTIONS: Please respond to the following statement using the 1-4 scale below.

1= < 12 hours
2= 12-24 hours
3= 24-48 hours
4= 48-72 hours

_____70. I would be okay with waiting to receive a response from a counselor for up to:

INSTRUCTIONS: For the following question, please circle the ONE best answer that describes your preference.

71. If I had a choice between **email or instant message online** counseling, I would prefer:

a. Email
b. Instant message
c. No preference

INSTRUCTIONS: For the following statement, please check all boxes that may apply.

72. I would be interested in the following methods of **online** counseling:

☐ Discussion boards (e.g., post an anonymous comment about a current concern and wait for other students to reply)

☐ Chat room discussions (e.g., engage in an anonymous "real time" discussion about a current concern with other students who join the chat room)

☐ Individual video-conferencing with a counselor (e.g., Skype)

☐ Email based peer support group (no mental health professional and only peer group members)

☐ "Real time" peer support group (no mental health professional and only peer group members)

☐ "Real time" group counseling (one mental health professional with several group members)

Please remove this page from the packet and take it with you

We wish to thank you for volunteering in our study. We recognize that some of these questions might bring up some negative emotions. As such we also recognize that some of the questions asked may be potential areas of concern for you. People sometimes, while completing the questionnaires, become aware of behaviors and thoughts that may suggest the need to talk to a professional or seek out further information. If, after completing the questionnaires, you recognize that there may be some issues or feelings that are a potential problem for you, we strongly urge you to contact a professional to talk to about your concerns or to answer questions that you may have.

The following agencies and resources are available for you to contact:

HSU Counseling & Psychological Services	(707)826-3236
(free to HSU students)	
HSU Community Counseling Clinic	(707)826-3921
Open Door Clinic	(707)441-1624
Humboldt County Mental Health	(707)445-7715

If you have any questions, please contact Chloe Brown either by phone at: (831) 917-0379, or by email at: cbb26@humboldt.edu, or the supervising professor, Dr. Beth Eckerd either by phone at: (707) 826-3757, or by email at: beth.eckerd@humboldt.edu.

Thank you very much for your participation.

Once again, we thank you for your participation in this research project.

Please remove this page from the packet and take it with you

We wish to thank you for volunteering in our study. We recognize that some of these questions might bring up some negative emotions. As such we also recognize that some of the questions asked may be potential areas of concern for you. People sometimes, while completing the questionnaires, become aware of behaviors and thoughts that may suggest the need to talk to a professional or seek out further information.

If, after completing the questionnaires, you recognize that there may be some issues or feelings that are a potential problem for you, we strongly urge you to contact a professional to talk to about your concerns or to answer questions that you may have.

The following agencies and resources are available for you to contact:

National Crisis Hotline	1-800-SUICIDE
National Suicide Prevention Lifeline	1-800-273-TALK
Rape Crisis Team Crisis Line	1-707-445-2881
	(collect calls accepted)

If you have any questions, please contact Chloe Brown either by phone at: (831) 917-0379, or by email at: cbb26@humboldt.edu, or the supervising professor, Dr. Beth Eckerd either by phone at: (707) 826-3757, or by email at: beth.eckerd@humboldt.edu.

Thank you very much for your participation.

Once again, we thank you for your participation in this research project.