AN EMPIRICAL EXAMINATION OF THE INFLUENCE OF PERSONALITY, GENDER ROLE CONFLICT, AND SELF-STIGMA ON ATTITUDES AND INTENTIONS TO SEEK ONLINE COUNSELING IN COLLEGE STUDENTS

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AN EMPIRICAL EXAMINATION OF THE INFLUENCE OF PERSONALITY, GENDER ROLE CONFLICT, AND SELF-STIGMA ON ATTITUDES AND INTENTIONS TO SEEK ONLINE COUNSELING IN COLLEGE STUDENTS

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Dissertation

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ABSTRACT

This study investigated the relationship of personality, gender role conflict, and self-stigma on the attitudes of college students toward internet counseling and their intentions to use such services. Previous literature has shown that online therapy can be ethically provided and has effective outcomes. Theorists have wondered if online counseling would minimize the negative impact of masculine gender roles and self-stigma of receiving counseling services; neither of which has been empirically tested. Data were analyzed from 494 college students. Results indicated that self-stigma is more positively related to attitudes and intentions to seek help for online counseling than it is for face-to-face counseling. The gender role conflict aspect of Restrictive Emotionality was positively associated with attitudes toward online counseling. No aspects of gender role conflict were related to intentions to seek online help for interpersonal or academic concerns while Conflicts Between Work and Family Life was positively related to intentions to seek help for drug concerns. The Five Factor Model aspect of Openness was found to be significantly related to attitudes toward online counseling and intentions to seek online counseling, whereas Extraversion was not. Post-hoc analyses explored gender differences in these relationships. Results indicated that online counseling may be a favorable option for people experiencing high levels of self-stigma toward mental health services, men with certain aspects of gender role conflict, and people who are high in the personality aspect of Openness. Future directions for research and implications for practice are discussed.
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CHAPTER I

INTRODUCTION

Statement of the Problem

Technological advances are changing the way psychology can be delivered. Although distance counseling has been used since Freud’s psychoanalysis (Skinner & Zack, 2004), the internet is ushering in a new period of distance counseling provided via the internet. Little research has examined the role of individual differences in client attitudes toward or intentions to use internet counseling, despite calls for such research (Rochlen, Zack, & Speyer, 2004). Counseling Psychology has a long tradition of individual differences research (Dawis, 1992) and could answer this call.

At the same time, forces are changing the traditional role of college counseling centers. College counseling centers are experiencing an influx of more students who are reporting more serious psychological problems (CSCMH, 2009; Stone, 2008). This is straining the services being provided as many centers are not able to expand staff or services to meet this need (ACCA, 2010). College students are among the most frequent internet users (Nie, Simpser, Stepanikov, & Zheng, 2005; UCLA World Internet Project, 2004), and the internet may be one way to outreach and provide services while at the
same time minimizing clinician time (Lintvedt, Sorensen, Ostvik, Verplanken, & Wang 2008). Counseling Psychology has begun to get involved in e-therapy research and practice. *The Counseling Psychologist* published a special issue devoted to the subject in 2005 (Mallen & Vogel, 2005). The articles in this special issue outlined the nascent research in the field and rightfully called for more attention to many unknown areas (Mallen, Vogel, & Rochlen, 2005; Mallen, Vogel, Rochlen, & Day, 2005). The reactions to these articles focused on future areas of research and practice for this new modality. These possibilities included psychoeducation (Chang, 2005), outreach to diverse and underserved populations (Sanchez-Page, 2005), online therapy as a new entity altogether (Barnett, 2005), and new ways to conduct research on process and outcomes (Caspar & Berger, 2005). The special issue produced more questions than it answered, but it did provide a foundation for Counseling Psychology becoming involved in this area of professional practice.

The current project seeks to understand if there are individual differences among college students that predict their attitudes toward and intentions to use internet-based services for a variety of different, commonly occurring psychological problems. The following will briefly discuss the development of distance counseling technologies, an overview of internet counseling services, online support groups, ethical issues in the provision of online counseling, the online therapy relationship, outcomes of online therapy, and individual differences focusing on self-stigma, masculinity, and the five factor model of personality.
Development of Distance Counseling

Distance counseling became more prevalent with the advent of the telephone. This technology ushered in the new modality of telephone counseling and telephone hotline/crisis services. Telephone services went from an untested means of therapy to a robust part of the mental health field, with empirical results showing their effectiveness (Reese, Conley & Brossart, 2002). More recently, the advent and popularization of the internet has created a basis for counseling to be delivered online (Grohol, 2003). Online counseling is a branch of a larger telehealth movement (Esterman, & Zabko, 1999) that is seeking to ameliorate disparities in access and barriers to mental health care (President’s New Freedom Commission on Mental Health, 2003). As this field is just starting, it has to go through the growing pains as telephone counseling did to prove its worth. Some examples of professional developments which are laying a foundation for the legitimacy of online counseling in the field include development of interdisciplinary principles for telehealth and psychology (Reed, McLaughlin, & Milholland, 2000) and the enactment of mental health telehealth laws (Koocher & Morray, 2000).

Another foundation for internet services is that professionals believe in the future of internet services. A Delphi poll of psychotherapy experts revealed that members of the APA believed that computerized and internet services would rise in the next decade (Norcross, Hedges, & Prochaska, 2002). At the start of the new millennium, APA members reported providing telephone telehealth service (98%), while 2% reported internet services (VandenBos & Williams, 2000). In fact, in the first decade of the new millennium, the APA had seen an increase in the use of email for services, rising from 2% to 10% (APA, 2010).
Overview of Online Therapy

Online counseling is not one entity but rather a collection of services that are provided via the Internet. Internet therapy is known by many different names (Barak, Klein, & Proudfoot, 2009) such as online counseling, internet therapy, e-therapy, interapy, and web counseling (these names will be used interchangeably throughout this dissertation). Despite the many names, one major distinction can be made among them, since online therapy may be either synchronous (occurring in real time in a chat room) or asynchronous (occurring typically through email; Suler, 2008). Abbott, Klein, and Ciechomski (2008) provided a useful six category taxonomy of online mental health services. These include: e-therapy, which involves a therapist and client communicating via email with an additional internet-based treatment program for a specific disorder; e-counseling, which involves a therapist and client communicating via email or instant message about an issue, but without the structured program that e-therapy contains; stand alone internet self-guided programs that do not involve a therapist; psychoeducational websites; online support groups; and online screenings/assessments.

Internet therapy is not simply providing traditional face-to-face services online. Therapy online, whether asynchronous or synchronous, is subject to the effects of computer mediated communication (Walther, 1996). This can cause communication to become hyperpersonal (Walther, 1996) and has led online therapists to describe a disinhibition effect during online therapy where clients open up more easily and experience other unique impacts of this environment (Suler, 2004). These developments have allowed online counseling to become a legitimate psychological service.
Online Support Groups

While professionals were beginning to provide direct services online, informal and formal support groups were forming online as well (Grohol, 2005). Research has examined how these groups have therapeutic outcomes similar to traditional, face-to-face groups. For example, in a content analysis of a public, online support group for eating disorders, Winzelberg (1997) found that this community used the same assistance strategies as traditional, face-to-face groups. Also, Bresnahan and Murray-Johnson (2002) examined messages of an online discussion group for menopausal women. Qualitative evidence showed users received support and felt they were part of a community. The authors argued that these online groups can help empower women to gain control over their lives.

Additionally, online groups have also been shown to function to support people with disabilities (Braithwaite, Waldron, & Finn, 1999). These researchers showed that over 95% of messages had an element of social support within them, with information and emotional support being more common than other categories ($\chi^2(4, N = 1,472) = 732, p < .001$). Research has also shown that the majority (95.1%) of depression support group users agreed that chatting in these groups helped their depression symptoms and also facilitated help-seeking behaviors (Houston, Cooper, & Ford, 2002). Finally, Chang, Yeh, and Krumboltz (2001) created an online support group specific for Asian American college males. Results showed that group members were active on the site, and most active during times the counseling center was closed. Results showed participants felt comfortable, supported by others, and believed topics were relevant. Participants thought this medium worked well (94%), thought that the online anonymity fostered sharing
(93%), would recommend it to others (94%), and liked the moderator's work (81%). A MANOVA was used to analyze group process measures over time, finding statistical improvement on experiential self-disclosure \(F(3, 269) = 11.5, p < .001\), informational self-disclosure \(F(3, 269) = 5.6, p < .01\), sharing \(F(3, 269) = 3.8, p < .05\), and acknowledgment \(F(3, 269) = 3.3, p < .05\). The authors argued that online group process was similar to face-to-face group process. These studies provided support for the effectiveness of online support groups.

**Ethical Issues**

Psychologists have weighed the ethical issues involved in internet counseling (Sampson, Kolodinsky, & Greeno, 1997). Several organizations have codified standards and principles in the area of online counseling ethics. These include the American Counseling Association (1999), National Board of Certified Counselors (NBCC; Bloom, 1997), American Psychological Association (1997), and International Society for Mental Health Online (2000). Major ethical issues involve considerations for the therapeutic relationship, client confidentiality, informed consent, practicing across state lines, electronic medical records, and suicide and homicide (Attridge, 2000). These developments have laid a foundation to claim that internet counseling can be ethically performed. With this ethical acceptance, universities are developing certification classes (Murphy, MacFadden, & Mitchell, 2008), and the NBCC offers a professional distance counselor credential. Due to these developments, the ethical climate is currently one that is open to online counseling.
**Online Therapy Relationships**

In addition to ethical issues, researchers and theorists have examined the therapeutic relationships involved in online counseling. For example, Suler (2004) examined some of the factors that lead online communication in therapy to be different from face-to-face communication in therapy, terming this the online disinhibition effect. Shultze (2006) supported this theory with findings from a longitudinal study of online educational counseling.

Empirical investigators are beginning to show that online therapy produces a relationship, and this relationship positively contributes to client outcomes. For instance, Day and Schneider (2002) examined working alliance levels in face-to-face, audio, and videoconferencing therapy. Analyses revealed that audio ($M = 4.15$) and video ($M = 4.19$) conditions had more client participation than did the face-to-face ($M = 3.99$), and all treatments were better than the control group in improving psychological outcomes ($F(12,265) = 1.82, p = .01$). Prado and Meyer (2004) examined working alliance as part of a Brazilian research project on online therapy. Results showed an alliance was formed by the fifth week and remained stable throughout the 15 weeks of counseling. Scores on the Working Alliance Inventory (WAI) were similar in this online sample to results found in face-to-face literature. In addition, therapy completers had significantly higher WAI scores than drop outs ($F(2,26) = 10.15, p < .01$).

In another study, Cook and Doyle (2002) compared working alliance scores to the WAI validation sample. The online group had significantly higher Goal ($t(14) = 3.04, p < .01$) and Composite ($t(14) = 2.31, p < .05$) subscores on the WAI, with no other differences between the groups. Reynolds, Stiles, and Grohol (2006) compared online
counseling session impact and working alliance scores to those found in the face-to-face literature. The SEQ and ARM means fell within the previously discovered range of face-to-face means for these measures established in the literature. These results provided preliminary support that relationships form in online therapy and may be important to online outcomes.

Further examination of different modes of counseling have shown that therapists appreciate aspects of non-traditional methods of therapy. For example, Day and Schneider (2000) found that therapists providing Cognitive-Behavioral therapy across face-to-face, videoconferencing, and audio conditions did not universally prefer the traditional condition (three of the ten preferred the audio condition). In addition, in a study of counseling trainees who provided five analog sessions of online chat counseling, Haberstroh, Parr, Bradley, Morgan-Fleming, and Gee (2008) found that counselor trainees experienced troubles with online counseling but developed solutions to deal with these issues as well. Also, Bambling, King, Reid, and Wegner (2008) conducted a qualitative study with online therapists who were providing services to Australian youth. Results highlighted the unique ways therapy is conducted online and how counselors experience and react to this therapy modality. Mental health professionals are writing about the benefits of using the internet in their practices (Shernoff, 2000; Yager, 2001; Zelvin & Speyer, 2003).

Research has also sought to understand the experience of online clients. For instance, research has shown that clients of online counseling have favorable experiences (Young, 2005). Additionally, online clients are often looking for free services when they go online (DuBois, 2004). Also, King and colleagues (2006) conducted focus groups with
users of an online therapy service designed for adolescents. Results revealed that users felt safer with the online context, especially with privacy issues at home. These preliminary findings showed that clients coming to online counseling have specific reasons for choosing that modality over face-to-face or other types of services. In addition, online clients typically report positive experiences with their counseling. This research indicated that online counseling can have a therapeutic relationship, has advantages that therapists can utilize for client change, and clients appreciate these services.

**Outcomes of Online Counseling**

Studies have shown that internet counseling interventions produce positive therapeutic outcomes. For example, internet interventions produced significantly improved outcomes for depression (Kessler et al., 2009), PTSD (Knaevelsrud & Maercker, 2007), panic (Kiropoulos et al., 2008), insomnia (Vincent & Lewycky, 2009), alcohol use (Hester, Delaney, Campbell, & Handmaker, 2009), and other diagnoses. Additionally, meta-analytic findings support the efficacy of internet interventions (Barak, Hen, Boniel-Nissim, & Shapira, 2008; Spek, Cuijpers, Nyklicek, Riper, Keyzer, & Pop, 2006). The results of Barak, Hen, Boniel-Nissim, and Shapira’s (2008) meta-analysis of 92 studies and more than 9,000 participants revealed that internet counseling had a medium effect of $d = .53$. CBT ($d = .83$) and psychoeducational ($d = .46$) effects sizes were larger than behavioral ones ($d = .23$). Results showed no differences in effectiveness between asynchronous or synchronous intervention modalities of e-therapy ($Qb = .20$, $ns$).
There were no differences for studies that directly compared the online modality to a face-to-face modality ($Q_b = .32, ns$).

Other research on internet interventions has targeted college students directly. Online counseling may be especially relevant for students in the current Millennial and Networked generation (Finn, Maples, & Han, 2008). For instance, college students have shown favorable attitudes toward using internet CBT for mental health concerns (Lintvedt et al., 2008). Internet interventions have also helped college smokers quit (An et al., 2008) and helped students improve their perfectionism (Arpin-Cribbie, Irvine, Ritvo, Cribbie, Flett, & Hewitt, 2008). Researchers have also demonstrated that the internet can be used with college students to improve body shape and weight concerns (Taylor & Jones, 2007).

The Internet’s outreach potential to assess for depression and suicidality in college students has been shown (Haas et al., 2008). These researchers were able to send a depression screening questionnaire through email to 14,500 undergraduate students, and 1,162 completed questionnaires. Students received feedback of their results online and symptomatic students were encouraged to come in for traditional services. One hundred thirty two students entered treatment and counselors indicated at least 75% of these students would not have sought treatment if it was not for this outreach service. Also, the University of Dublin implemented an online mental health community for one academic term involving an information portal with psychoeducational content, email counseling which was posted to the site, and a discussion board (Richards & Tangney, 2008). Results showed the power of these services to reach out to student communities as 389 students registered for the site and over 1,700 topics were viewed on stress, depression,
and academic anxiety. These results showed that the favorable outcomes for internet interventions in general are applicable to specific college populations as well.

**Individual Differences**

Although online therapy has been shown to have beneficial outcomes for clients, questions remain about what characteristics would cause people to use these services. Rochlen, Zack, and Speyer (2004) called for research on how individual differences impact attitudes toward and use of online counseling interventions. Griffiths (2001) also called for research in this area. The ISMHO has created a clinical case study professional group that has discussed what factors make a client suitable for online therapy (Suler, 2001). The group concluded that “online therapy will not be appropriate for all people seeking help” (p. 679), while research now ought to determine what some of these factors may be. The current study will examine the impact of stigma, masculinity, and personality on a person’s attitudes and intentions to use online counseling for several different types of mental health problems.

**Stigma.**

Stigma has been theoretically conceptualized as reducing help-seeking behavior (Corrigan, 2004). Corrigan claimed that stigma has two major dimensions, public stigma and self-stigma. Each type of stigma has negative consequences which people can avoid by not seeking help. Sociologists have also examined the role of stigma in society, its negative consequences, and the ways people work to avoid being stigmatized (Link & Phlan, 2001).
Empirical studies have supported the link between stigma and help seeking (Vogel, Wade, & Hackler, 2007). For example, using Structural Equation Modeling (SEM), Vogel, Wade, and Hackler (2007) found that self-stigma fully mediated public stigma’s effect on intentions to seek counseling. These results showed that public stigma leads to self-stigma which decreases attitudes toward help-seeking and intentions to seek help. In another mediation analysis using SEM, Vogel, Wester, Wei, and Boysen (2005) examined the relationship between attitudes toward help-seeking, intentions to seek help for three types of personal issues, and eleven psychological factors. Attitudes were significantly related to six factors (previous therapy, social support, social norm, anticipated utility, and self-disclosure, and social stigma) and intentions to seek help for interpersonal and drug/alcohol issues. These results again showed that psychological factors are related to attitudes toward help seeking and intentions to seek help. Vogel and colleagues (2005) conducted a separate study prospectively looking at factors that led to help-seeking. They surveyed students at the beginning and end of the semester and compared those who reported seeking psychological help with those that did not. Results of a logistic regression showed that there was an interaction between experiencing a distressing event, anticipated risk, and eventual help-seeking. Thus, one’s experience of distress did not lead ultimately to help seeking; rather this distress was considered with the anticipated risks of seeking help.

Other stigma research has shown a relationship of stigma to intentions to seek help in minority women (Miville & Constantine, 2007). Additionally, Burns, Durkin, and Nicholas (2009) asked users of an internet mental health community about its impact on their subsequent help-seeking behavior. A majority of users (59%) said they had spoken
with a mental health professional after being on the site, while another 19% indicated they planned on doing this. While these results rely on simple descriptive statistics and did not involve random assignment, they showed that the internet may be an initial way to reduce the sense of stigmas in people and then in turn increase future help-seeking. Thus, these results indicate that stigma impacts traditional help-seeking behavior and non-traditional services may be able to overcome this barrier.

**Masculinity.**

Masculinity has also been linked to problems with attitudes toward counseling and intentions to seek help (Addis & Mahalik, 2003). Addis and Mahalik (2003) argued that masculine socialization consists of two major aspects: masculinity ideology (beliefs about what a male is and how a man internalizes these norms) and masculine gender-role conflict (negative consequences of holding masculine ideology). Masculinity also impacts the presenting concerns of counseling clients, negative attitudes toward help-seeking, and decreases help-seeking (Mahalik, Good, & Englar-Carlson, 2003).

Empirical studies have found support for these theories. For example, the gender role conflict dimension of restrictive affectionate behavior between men and the construct of traditional masculine ideology have been negatively related to help-seeking attitudes (Berger, Levant, McMillan, Kelleher, & Sellers, 2005). Additionally, using SEM, Good and Wood (1995) also found that restriction-related gender role conflict significantly predicted lower attitudes toward help seeking. Furthermore, Blazina and Marks (2001) had men rate their intentions to use three different types of services, psychoeducation, support group, and individual counseling. Men with higher gender role conflict had
significantly more negative mood reactions to all three treatment conditions. Robertson and Fitzgerald (1992) found that gender role conflicted men preferred nontraditional brochures for counseling versus traditional ones. Finally, SEM has also showed that masculinity directly impacts intentions to seek help and also indirectly impacts this intentions with an indirect effect through increasing self-stigma in men (Pederson & Vogel, 2007).

In order to increase male intentions to seek counseling, alternative services such as coaching (McKelley & Rochlen, 2007) and the internet have been suggested. Rochlen, Land, and Wong (2004) conducted the only published empirical study of attitudes toward online counseling in men. A MANOVA showed no significant differences between online or face-to-face modalities. Men who were in the online condition had significantly more positive attitudes toward online counseling after they learned about it than at pre-test. These results indicated that, due to the newness of online counseling, people may not have a good idea what it entails but may be more open to it after education or experience. More research is needed to test this hypothesis. Overall though, masculine gender-role conflict has been show to inhibit help-seeking in males and online counseling may be a way to reach those men who are not inclined to seek face-to-face counseling.

**Personality.**

Another major individual difference factor in attitudes toward counseling and help-seeking intentions is personality. The Five Factor Model (FFM) of personality has received support in the literature as a stable, universal model of human personality (McCrae & Costa, 1997; McCrae et al, 2000; McCrae & Terracciano, 2005; O’Connor,
Research on personality and its relationship to attitudes toward counseling, process, and outcomes is limited. One such study is Coleman (2006), which found significant relationships between some facets of the Five Factor Model and working alliance as well as outcomes. Other research has shown significant relationships between aspects of the FFM and utilization of different types of mental health treatment (Hopwood et al, 2008). These results showed that aspects of the FFM significantly predicted usage of individual therapy. Furthermore, client expectations about counseling have been shown to relate to personality (Schaub & Tokar, 1999). Also, Extraversion has been associated with various coping strategies, including help-seeking (Amirkhan, Risinger, & Swickert, 1995) as well as client experience during counseling sessions (Nocita & Stiles, 1986). In addition, personality has also been shown to impact group therapy dropout (MacNair & Corazzini, 1994). There is also support for the idea that personality characteristics mediate the impact of masculinity on counseling variables (Tokar, Fischer, Schaub, & Moradi, 2000).

Personality may impact how people relate online. For instance, personality characteristics have been shown to relate to patterns of internet use (Hamburger & Ben-Artzi, 2000; Swickert, Hittner, Harris, & Herring, 2002; Tuten & Bosnjak, 2001. Also, people with certain personality characteristics find it easier to be themselves while communicating online (Amichai-Hamburger, Wainapel, & Fox, 2002). Preliminary work has explored the relationship of personality to online counseling (Tsan & Day, 2007). Extraversion was found to be a significant predictor of online counseling seeking ($F(10,326) = 1.46, p < .15$), but only Extraversion and Neuroticism were assessed in this study. Future research is needed to understand if personality does predict attitudes toward
and intentions to use internet therapy. These results though provide support that personality is an important individual difference to examine for online counseling.

**Importance of the Study**

The purpose of this study is to examine the impact of different individual difference variables on attitudes toward online counseling and intentions to seek online counseling for different mental health concerns in college students. This research will provide understanding of how individual differences impact attitudes and intentions to use online therapy services. Much theoretical discussion has addressed these issues but little empirical research has examined these factors. The results will help shape how online interventions are viewed in the future and may be used to reach certain people who do not seek help through traditional services.

The primary hypotheses are as follows: (1) Familiarity with online communication and technology would be associated with significantly positive attitudes toward online counseling and intentions to seek online help (2) Self-stigma would be significantly positively related with attitudes toward and greater intentions to seek online counseling when compared to face-to-face counseling, (3) Gender role conflict would have a significantly more positive relationship with attitudes toward online counseling and intentions to seek online help than attitudes toward face-to-face counseling and intentions to seek face-to-face help, (4) Openness would be significantly positively related with attitudes toward online counseling and intentions to seek online help, and (5) Extraversion would be significantly positively related with attitudes toward online counseling and intentions seek online help. The relationship of the three other personality
characteristics of Agreeableness, Conscientiousness, and Neuroticism with attitudes and intentions would also be assessed in a general research question.

Definitions

**Asynchronous services:** Therapy services occurring with time in between communications where the communication is not in real time, typically through email or message forums.

**Attitudes toward counseling:** Beliefs, positive, negative, or neutral toward mental health services, both face-to-face and online as determined by the Online Counseling Attitudes Scale (OCAS).

**Computer Mediated Communication (CMC):** Communication between people that takes place through the medium of computers and requires, written, text communication.

**Gender-role conflict (GRC):** The negative consequences of holding masculine ideology. Gender role conflict is theorized to have different aspects to it and the Gender Role Conflict Scale assesses four of these dimensions: Success, Power, Competition, Restrictive Emotionality, Restrictive Affectionate Behavior between Men, and Conflicts between Work and Family Relations.

**Intentions to seek counseling:** Actual intentions to seek mental health services. Assessed in this study by the Intentions to Seek Counseling Inventory (ISCI).

**Interactive televideo (IATV):** Videoconferencing services where client and therapist interact at separate locations with the use of video through the internet.
**Internet counseling:** Also known as online counseling, internet therapy, e-therapy, interapy, web counseling, and other variations there of. Counseling that is conducted over the internet, typically via computer and involves text communication.

**Online disinhibition:** A psychological state brought on by computer-mediated communication via the internet in which people engaging in online communication experience greater ease in discussing their thoughts and feelings. May be either positive or negative.

**Online support group:** A group that exists online that may be moderated by a mental health professional or not that allows members to give and receive support for general issues or specific concerns.

**Personality:** The Five Factor Model of Personality which consists of the five factors of Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness. Assessed in this study by the International Personality Item Pool-Five Factor Model set (IPIP-FFM).

**Self-Stigma:** The lowering of personal self-esteem by believing one is unacceptable for seeking mental health treatment. Assessed in this study by the Self-Stigma of Seeking Help Scale (SSOSHS).

**Synchronous services:** Therapy services occurring in real time where the therapist and client communicate directly back and forth to one another at the same time, typically using chat rooms or instant messaging programs.

**Telehealth:** Mental health services that are provided in non-traditional ways with the use of technology. Includes the use of telephone, videoconferencing, and internet technology.
CHAPTER II

BACKGROUND OF THE STUDY

Introduction

The technological revolution of computers and the internet has ushered in many changes in modern society. Technology has also made the idea of distance counseling via the internet and computers a possible reality. This type of counseling has many different names, such as online counseling, internet therapy, e-therapy, interapy, and web counseling. No matter what the label, the core of these new modalities is providing counseling/therapy services to a client at a distance through technology and the internet (Barak, Klein, & Proudfoot, 2009). Whereas the concept of internet counseling is relatively new, counseling from a distance, typically via letter, has been around since Freud (Skinner & Zack, 2004). Using this modality for counseling may be a new way the field of Counseling Psychology’s values and goals of social justice, wellness, and strengths can be met (Super, 1955). According to the Surgeon General’s Report on Mental Health (1999), the majority of people with psychological problems never seek treatment. The reasons for this lack of help-seeking are complex, but theorists have discussed the impact of stigma (Corrigan, 2004), personality (Tokar, Fischer, Schaub, &
Moradi, 2000), and masculinity (O’Neil, 2008) on the use of traditional, face-to-face services. It remains to be seen if counseling online can change this dynamic.

The purpose of this study is to empirically examine the impact of several individual difference variables (personality, stigma, and masculinity) on attitudes toward online counseling and intentions to seek help. First, this review will explore the field of Counseling Psychology’s current relationship to online therapy. It will then examine the historical antecedents to modern distance counseling. Third, ethical considerations in the conduct of online therapy will be discussed, as well as current literature on the process and outcome of current online therapeutic interventions. Fourth, literature that examined the experience of counselors and clients involved in online therapy will be discussed. Finally, the individual differences variables of stigma, personality, masculinity and attitudes/behaviors toward counseling will then be reviewed.

**Online Counseling: What is it?**

Online counseling takes many forms. All online counseling can be defined as the provision of services from a counselor to a client or clients in different locations through the use of the internet (Barak, Klein, & Proudfoot, 2009). It may be either asynchronous, operating with time in-between questions and reply (such as via email), or synchronous, operating in real-time, (such as talking in a chat room; Suler, 2008). Abbott, Klein, and Ciechomski (2008) broke down existing online mental health services into six groups as a useful taxonomy of services. The first service was e-therapy, which involves a therapist and client communicating via email with an additional internet-based treatment program
for a specific disorder. Next was e-counseling, which involves a therapist and client communicating via email or instant message about an issue, but without the structured program that e-therapy contains. Third, there were stand alone internet self-guided programs that do not involve a therapist. Finally, there were psychoeducational websites, online support groups, and online screenings and assessments.

Barak (1999) identified ten different psychological services that were being offered on the internet. First, information resources provided essential facts on psychological issues and correct distorted/biased beliefs. Second, self-help guides on particular mental health issues such as overcoming depression or career exploration were available. These guides typically involved an assessment of the issue, psychoeducational information about the issue, and behaviors directed toward change. Many Cognitive Behavioral Therapies are now being researched along these lines and will be discussed in depth later. The third domain of services involved psychological testing and assessment in areas such as vocational interests, intelligence, and personality. Two other domains involved helping people decide whether they need psychological assistance and finding the right therapist/therapy for their needs, as well as providing information about specific psychological services (such as those provided on University Counseling Center websites). Another area was advice delivered for individual questions through email or bulletin board systems. Asynchronous email counseling and synchronous real-time chat, video, or telecounseling were two other services provided on the internet. Support, discussion, and therapy groups were another service provided. Finally, the internet was being used for social and psychological research. Such a taxonomy is useful in describing what psychological services are currently being offered online.
A debate emerged whether internet therapy provides an equivalent therapeutic experience as face-to-face therapy or if it is something different (Collie, Mitchell, & Murphy 2000). Although the answer is still being researched, theorists agreed that online therapy has different conditions that should be considered when creating and administering internet therapies. Articles that have discussed the unique conditions of the online environment will now be discussed.

The field of communications has delved extensively into understanding the advantages and disadvantages of face-to-face versus computer mediated communication. Walther (1996) provided an extensive overview of the effects of computer-mediated communication in general. This overview dealt with how computer-mediated communication functions differently from face-to-face, but did not explore the therapeutic impact of such differences. Early research on communication through computers found that this type of relating was more impersonal than face-to-face communication. More recent research examined computer mediated communication from a social information processing perspective, which assumes people in Computer Mediated Communication (CMC) are motivated to develop social relationships. The key difference in CMC from face-to-face communication is the rate of information communicated, with CMC being slower. Whereas same amount of information can be transmitted via CMC, it takes longer to do so. Thus, findings on CMC are largely dependent on the time frame given for the amount of CMC happening.

Walther (1996) concluded that CMC can be impersonal, interpersonal, or even hyperpersonal, depending on the circumstances. CMC is impersonal only when it is time limited, has no interpersonal goals, and has no future opportunities for interaction. These
conditions are not present in online counseling. CMC becomes interpersonal when people have more time to share information and anticipate future interaction. In this framework, CMC was similar to face-to-face interactions but may require more time to develop. Finally, CMC can become hyperpersonal when the communicators are self-aware, separated physically, and have less social cues available to them, allowing them to select and edit their presentation without reality interfering. Walther concluded that the communication medium is not alone responsible for what type of communication occurs but provides opportunities for the user to communicate as he or she wants. Thus, online counseling may be desired by clients who choose to take advantage of these aspects of CMC that face-to-face communication in therapy does not afford them.

The previous literature dealt with online communication in general, the next research examines online therapy dynamics. First, asynchronous and synchronous online counseling rely heavily on the written word. Clients must be able to read and write with some proficiency to benefit from such therapies. For instance, Murphy and Mitchell (1998) presented their version of “therap-e-mail” for online asynchronous counseling. These authors argued that the main advantage of asynchronous counseling is that writing can be an externalizing force and the recursive act of writing allows the client to understand and refine his/her sense of self. Online therapy can tap into these dynamics to aid clients in changing.

Manhal-Baugus (2001) discussed “e-therapy” as a concept different from psychotherapy or counseling since it does not diagnose or treat mental disorders. However, it does assist clients in addressing issues with specific skills. This definition was much narrower than current conceptions of online therapy and may have been put
forth to avoid legal and ethical complications of actual counseling online. Manhal-Baugus noted that face-to-face therapy theories may not all be applicable to the internet medium due to its experimental and different nature. Instead, the author argued that solution-focused and narrative therapies were more appropriate to this context due to their theoretical underpinnings in the effectiveness of writing. The author also stated that compared to face-to-face therapies, e-therapy had the benefits of being convenient, affordable, accessible to rural populations, fostering an anonymity which facilitates disclosure from clients, and empowering clients through their therapeutic writing.

In reviewing the behavioral telehealth applications of internet counseling, Laszlo, Esterman, and Zabko (1999) examined the possible use of crisis intervention, CBT, narrative, and solution focused theories. These authors described the process of transference as being at the core of online therapy due to its lack of non-verbal communication. Since the client cannot see the therapist, there is easier projection of the unconscious onto the online therapist. The anonymity and lack of non-verbal communication also promotes hyperpersonal interaction that facilitates self-disclosure on the part of clients. These authors also conducted a small scale study of online therapist fees. They found that the average email transaction fee was $18, ranging from no cost to $50. Group sessions averaged $26, ranging from $15 to $40. Individual chat sessions averaged $45, with a range of $25 to $90. The average of these costs appear to support the notion that online counseling may be more financially feasible for clients than face-to-face counseling.

Abbott and colleagues (2008) discussed some best practices in online therapy. Their review specifically applied to the concept of e-therapy in which a therapist and
client interact, usually via email, and the client completes an additional internet based program for a specific concern. They noted that a client in this modality would benefit from having computer experience and an ability to read and write in text-based CMC. They also required clients to provide personal contact information and contact for their medical physician. The authors also discussed the importance of confidentiality, security, informed consent, and training of the e-therapists, a recurrent theme found in the literature.

Griffiths and Christensen (2007) discussed how internet-based programming can be essential tools to reaching rural populations. Access to mental health interventions is generally poorer in less-populated areas. People living in rural environments also often develop a culture of self-reliance in which going to a counselor is unusual. These researchers have conducted extensive research on online mental health programming for Australia, a country with large rural areas. Much of this research is on the effectiveness of online interventions and is reviewed later in the section on outcome studies. Online psychoeducation and CBT interventions designed by these researchers have been shown to be cost-effective. The authors noted that much more research needs to be done to examine online therapy’s benefits and effects on rural communities.

As the previous studies noted, the major limitation currently to online counseling is its experimental nature. Online therapy is still new, and preliminary research exists on the concept. In addition, there is little training specific to working in the online environment. This is a major issue for competency to provide services. Although a therapist may be licensed and competent in general counseling, this does not imply that he or she can work within the online medium. For example, Murphy, MacFadden, and
Mitchell (2008) described a certificate course in online counseling offered through the Graduate School of Social Work at The University of Toronto. The authors also mentioned that there were two other certificate programs offered online. The program involved two separate levels of training; graduates of Level 1 can then go on to learn more advanced training in Level 2. The training involved ethical and clinical issues of interest that the authors believed were critical to the practice of online counseling. Level 1 involved theory, skills, technology, and ethics of online counseling and Level 2 focused on the application of counseling skills online. The authors emphasized the encryption security of the email system that is used to deliver course content and clinical practice, reducing security concerns of this counseling modality. The authors also presented evaluation data from the course that indicated that pupils learned much from it and will shape its future direction. The authors argued that this training proved to students that online therapy is possible and allowed them to consider the many possibilities of practice in such a modality. Courses such as this one are an important step in making the practice of online counseling legitimate. Until states regulate this practice, certificate programs can begin providing appropriate training for practitioners in the field.

Interventions are currently being offered online, and practitioners are providing tips for therapists looking to join the movement. Elleven and Allen (2004) described tools of internet counseling and relevant organizations for beginning online therapists. For example, they suggested having a “techno-buddy” to try out different technologies together. Since the field of communications technology is currently evolving at a fast pace, online therapists need to stay abreast of these changes. The authors distinguished between synchronous and asynchronous tools such as email, instant messaging, chat
rooms, and video conferencing. There are a variety of ways to offer online counseling and different options will be attractive to clients for different reasons. The authors cautioned online therapists to meet the client where he/she is technologically.

Maheu and Gordon (2000) investigated the current state of who was conducting online counseling in 1997. They developed a 40-item questionnaire that was sent out on listserves targeting professionals engaging in online therapy. Fifty-six providers of online services responded to the survey. The authors noted that 29% of providers were operating outside of the U.S. Only 18% of total respondents described their services as counseling or therapy; the majority (63%) described services as education or advice. Importantly, 78% of respondents provided services to people out of their state, and only 60% checked residence of clients. Seventy-four percent were unaware of telemedicine laws in their state, only 50% made arrangements to deal with client crises, and only 48% used a consent form before providing services. Respondents reported treating a variety of concerns, which ranged from mood and anxiety issues to relationship concerns, grief, and sexual disorders. The majority of providers were licensed or certified (87.5%), but a minority were not. A range of provider professions also existed, with the majority being psychologists (50%), but counselors (14%), psychiatrists (12.5%), social workers (12.5%), and other professions (9%) were represented as well. These results revealed the disparate nature of services provided on the internet, as well as some of the ethical issues (crisis management, informed consent) that existed in this medium.

These articles revealed that research on the practice of online counseling was starting to increase in the literature, and they provided an overview of this new field of practice. Researchers described the different types of services delivered online and
explored how frequently practitioners engage in different services. Importantly, these articles showed that online counseling is not one particular entity. In the next section, the relevance of online counseling to the specialty of Counseling Psychology is considered.

Counseling Psychology and Online Therapy

In 2005, *The Counseling Psychologist* published a special issue dedicated to the concept of online counseling. The introduction by Mallen and Vogel (2005) outlined the major issues in the field. They noted that there are few psychologists involved in the provision of online services, although they were in existence and were increasing in number. There was also a major need to examine the effectiveness of online counseling to ensure services are provided in an ethical and professional manner. The atmosphere for online counseling included efforts to define the practice of delivering online mental and behavioral health services. Online counseling encompassed an almost constant influx of technological innovations and vague ethical standards regulating the practice of online counseling. Debate and empirical research were structuring these ethical concerns, and standards were being developed. The specific literature on these considerations will be discussed in the section on ethical considerations.

The field of Counseling Psychology is well suited to provide and evaluate the field of online counseling for several reasons. First, because of the field’s scientist-practitioner model, Counseling Psychology is poised to handle the important efficacy and effectiveness research needed to make online counseling legitimate (Mallen & Vogel, 2005). Second, process and outcome research has a long history in the field with a unique
focus on normal and developmental challenges/tasks (Dawis, 1992). Third, Counseling Psychology’s emphasis on social justice issues (Vera & Speight, 2003) also fits with online counseling since it is possible that online counseling will benefit rural, isolated, and underserved populations. Important to social justice and provision of online services is the concept of the digital divide, referring to the wealthy and educated having disproportionate access to technology (Stern, 2010). Counseling Psychology’s social justice mission can seek to minimize this divide by conceptualizing technological access as a social justice issue and seeking to redress it through various means.

Counseling Psychology is poised to explore new ways of providing services to people. For example, those clients who are functioning at a relatively high level, and who have access to technology, may not require weekly face-to-face sessions (Sanchez-Page, 2005). Such a provision of online counseling may result in the client feeling less dependent on the therapist and may feel more comfortable in his/her environment. The modality also allows for more control over self-presentation, appropriate for short-term therapy, self-help, and CBT based interventions (Laszlo, Esterman, & Zabko, 1999). Online therapy also allows for new ways of conducting sessions; for example, the record of text communication can allow a therapist to challenge with exact words from previous sessions (Barak, 1999). Finally, internet websites can educate about mental health issues and steer people away from inaccurate or dated information. The internet can be crucial to primary prevention efforts and psychoeducation (especially for marginalized populations) (Chang, 2005).

In a second article published in the special issue of The Counseling Psychologist, Mallen, Vogel, and Rochlen (2005) explored the practical aspects of online counseling’s
feasibility and future. Central to this article was the debate as to whether or not online counseling was considered ethical. The Major Contribution considered the ethical concerns of duty to warn, scope of practice as far as licensure laws, confidentiality, record keeping, use of information, and marketing of services. Other authors have considered these ethical issues in turn; these are discussed in the section on ethics.

A second practical issue discussed by Mallen, Vogel, and Rochlen (2005) involved training. Training programs for Clinical and Counseling Psychology have evolved over decades and involved accepted standards and accreditation practices. Online counseling, being a new entity, was just beginning this process, but providers who wished to enter the field must have appropriate training. The authors suggested that training include computer mediated communication competency, education in online counseling (e.g., practica experiences, courses, organizations), supervision of online counseling work, examination of how cultural issues are expressed and received online, and access to online services. Training should also cover issues of technology competency, its cost, and how one’s practice/services are promoted in advertising.

Finally, related to training in computer mediated communication, Mallen, Vogel, and Rochlen (2005) discussed how online counselors needed to acquire specific skills in this modality. The authors demonstrated some of these skills with a case example and showed that counseling skills used in face-to-face sessions, such as open and closed questions, exploration, insight, normalizing, interpretation, and self-disclosure, while applicable online, may need to be more explicit given the text environment. Therapists may also want to explicitly type out their feelings, since they are not evident to clients through non-verbal communication. Punctuation marks or capitalizing can be useful in
clarifying the intent of a statement; other conventions, such as emoticons, can be used as well. The online counselor should also be familiar with “text-speak” conventions, such as “lol” (laughing out loud) and “btw” (by the way), that people use to facilitate text based communication.

In the third article in *The Counseling Psychologist’s* special issue, Mallen, Vogel, Rochlen, and Day (2005) reviewed the extant literature on online counseling from a Counseling Psychology perspective. They examined the thirty years of research on telephone counseling, and concluded that the phone has been used for outreach, prevention, treatment, and relapse prevention. In addition, the phone had not replaced traditional counseling services, and these results indicated that new technologies, such as the internet, should be explored for their counseling applications as well. The authors found 27 articles related to online counseling through 2004 in their comprehensive search. This review concluded that people received support from internet groups and sought help in these online environments. It also concluded that people found online services to be satisfactory and useful. The authors also claimed that professionals were more negative about online possibilities than clients due to their reservations about online counseling found in the literature. However, the authors cautioned that research on the online counseling process is limited and findings are mixed.

Mallen, Vogel, Rochlen and Day (2005) also concluded that the outcome studies in existence had mostly positive findings for online interventions, which provided support for continued research in this field. Preliminary studies also suggest online counseling may be useful at reaching underserved and underutilizing populations. The authors argued the field of Counseling Psychology should research the area of online counseling
along traditional discipline lines such as normal development, client strength and resilience, education and career development, and prevention and wellness.

The reaction articles to this Major Contribution to *The Counseling Psychologist* highlighted the many possibilities for counseling and need for research in this area. For instance, Chang (2005) suggested that online counseling must focus on the foundational components of psychoeducation, wellness, prevention, and consultation, and not individual remediation counseling, since most people were not looking for one-on-one counseling on the internet. He argued that the majority of the general public, and those in need of help, were unwilling to use online individual counseling, but they were much more likely to seek information or support groups online. Unfortunately, existing research suggested that the quality, accuracy, and coverage of the information available online was poor. For example, for-profit sites presented biased, misleading information; however, interactive, online programs for treating and preventing mental health problems were being created and tested. Chang suggested that Web sites could include psychoeducation targeted at reducing barriers to service use, reducing stigma, enhancing positive help-seeking attitudes, and educating people to become good consumers. Chang also challenged researchers to consider moving beyond the individual sessions online and to consider a broader use and research agenda for the internet.

In a second reaction article, Sanchez-Page (2005) argued that the internet should not be used as a primary mental health tool until research proves it to be useful as such. The author did state that the internet was a “useful and important psychoeducation and secondary tool for Counseling Psychologists’ work” (p. 891). Issues of the digital divide and access to the internet underlie this use of the internet, and research needs to examine
how such interventions and outreach via the internet impact these underserved populations. Sanchez-Page noted that non-verbal signals have been shown to be particularly important to the communication patterns of non-European Americans, and research needs to examine how online counseling is effective for this population. The author cautioned that research on online counseling should not be applied as a “universal tool” directly to minority communities without consideration for cultural variables. Online counseling would benefit underserved populations if it reduced the stigma of, and improved the trust in, mental health services amongst these populations. Sanchez-Page further argued that the internet had been used successfully in outreach and consultation efforts with diverse students attending college.

In the third reaction article, Barnett (2005) noted that there is no empirical evidence that online counseling is equivalent to in-person psychotherapy, and online counseling may, instead, be a new entity altogether. The article examined many of the gaps in the literature on this topic that need to be addressed, including lack of research on online sessions, impact of text communication, guideline development for online services, and servicing those without technological access. For example, Barnett stated that much of the body of research was not of actual online counseling sessions between therapists and clients. Instead, it consisted of analog studies, retrospective studies of past online clients, and theoretical arguments. In addition, language was a significant barrier, with the various colloquialisms, idioms, and dialects that are likely to be encountered when conducting distance therapies. Emoticons (typed out expressions of emotions/feelings) are complicated and may be misunderstood. There was also a need to develop a better understanding of who is or is not suited for online services. Additionally, practitioners
cannot demonstrate competency if there were no online counseling guidelines. To develop such guidelines, there was a need to engage in professional advocacy efforts to reform licensure laws, actively inform and educate members about appropriate professional standards, and develop standards and regulations. Furthermore, it was argued the field should help increase internet access for the disenfranchised and advocate for reimbursement of services. Online counseling has lower costs than traveling to clients or therapists, and, thus, may be a potential avenue to assist lower socioeconomic groups. Overall, Barnett highlighted the many gaps in the current literature.

In the final reaction article to the Major Contribution, Caspar and Berger (2005) noted that the text based approach to online counseling opened many new avenues of research. This text based therapy can be analyzed in new ways to evaluate the process and content of counseling. One of these methods was Latent Semantic Analysis (LSA) that analyzes the semantic space of text. LSA had been used to give trainees individualized feedback on case conceptualizations and provide automatic transcript coding. The authors argued that computer technology can do more for Counseling Psychology than provide a medium for online counseling: It can facilitate self-help programs, be used in couple’s therapy to match preferences, and aid in psychological testing. They also argued against the “uniformity myth” of determining which counseling approach is superior, and to instead ask “differential questions about which interventions are most effective with which clients” (p. 903). The authors also argued that theories stating online counseling may not be good for particular populations should not be universally accepted without examination; these arguments await empirical testing. People are signing online every day, seeking out information, support, and relationships,
and Counseling Psychology has the opportunity to be proactive in encouraging and coordinating these trends with traditional counseling.

Overall, the articles presented in the Major Contribution to *The Counseling Psychologist* in 2005 provided a starting impetus to the field of Counseling Psychology toward delving into internet counseling. The articles highlighted the important ethical, training, and counseling skill issues involved in online counseling. They also considered how online counseling can be used for individual or group therapy, prevention work, psychoeducational outreach, and other services. The authors agreed that the field should become involved in this modality of counseling (although there was argument over the best way to accomplish this). They also agreed that online counseling was appropriate to the values and goals of Counseling Psychology. Whereas this special issue helped to focus the field of Counseling Psychology toward its relationship to internet counseling, the historical context of this movement needed to be considered. Next, the history of the development of the field of online counseling is examined.

**History and Background of Online Counseling**

Since Freud initially discussed psychoanalysis, counseling and therapy have been viewed as happening in a face-to-face context between a therapist and a client (Skinner & Zack, 2004). Although this was the general view of psychotherapy, such a view ignored the historical context of counseling and the more recent developments to its conduct. Skinner and Zack (2004) placed internet counseling in a historical context as an “indirect therapy,” a class of therapies that started back with Freud’s analysis of “Little Hans.” In
this examination of a five-year old boy who had a phobia of horses, Freud analyzed the subject through the boy’s father, who kept notes of Hans and sent them to Freud for comment (Etchegoyen, 1988). Freud conducted this, and other analyses, via letter, a distance technology of the day. More recently, telephone counseling had become a mainstay for crisis services and for individual therapy. Skinner and Zack argued that the seemingly radical idea of using the internet to provide counseling is not so radical at all from a historical standpoint. The following will cover the growth of online counseling from the development of computer programs in the 1970s to the current internet technology services. This context revealed that technological advances have been influencing counseling since its inception.

Grohol (2003) specifically examined the history of online counseling. Counseling techniques had been used with computers since computers came onto the technological scene in the second half of the 20th century. For example, in 1972, software such as ELIZA and PARRY were developed. ELIZA was designed to have the computer mimic Rogerian responses to a user’s statements, and PARRY was developed as a computer program to mimic a client with paranoid behavior; the therapist ELIZA and client PARRY even engaged in a simulated counseling session over the internet. While these programs never developed enough to sufficiently replace an actual therapist in counseling, they did show the power of text in communication. These programs were the beginning of a movement examining what computers could accomplish in the field of counseling. As computers became more common in modern life, a person interacting with a person through a computer screen became more ordinary.
The 1970s brought computers into the home for the first time (Grohol, 2003). Bulletin Board Systems were developed that allowed these first computer users to communicate with each other, typically in an asynchronous message fashion. These groups tended to be smaller and closer than their modern equivalents since less people were on the internet at this time. As the internet became more popular and accessible, more groups developed that allowed users to join, post comments, or read content anonymously. One example of such a group is the depression support group “alt.support.depression,” which is still functioning today and archived at Google. In such a group, people could post a “thread” or topic discussing their own depression, news, or any other idea. Users could simply read what others write, write posts themselves, or make comments to other people.

When larger companies, such as CompuServe and AOL, began offering internet services, their infrastructure allowed online groups and information to be more accessible and useable to lay people without much computer experience. People began accessing mental health information and engaging in support or newsgroups from their computer. Grohol (2003) argued that the actual practice of online counseling came about in universities that had free and extensive internet capabilities to students. For example, Cornell introduced the “Ask Uncle Ezra” system in 1986 that allowed computer users to ask health and wellness questions that were answered and made publicly available to all to read.

Individual mental health professionals became involved in answering questions on listserves and through email, eventually creating their own websites (Grohol, 2003). For example, Grohol created PsychCentral in 1995, and Goldberg created Depression
Central in 1996. These sites became areas for psychoeducational information about specific concerns, such as depression or general mental health themes. One could access relevant news articles, a community of support, or find resources. Advocacy groups also harnessed the power of the internet during this time. The Samaritans, a United Kingdom group that handled suicide phone calls, set up a suicide email address in 1994 to allow internet users to anonymously email and receive support. Recent statistics showed that over one year this service received over 160,000 emails and an additional 104,000 texts, 19% of which are suicidal (Samaritans, 2009). In 1995, Sommers started a fee for service therapy business on the internet. In this model, a client would pay Sommers for psychological help delivered over the internet. The same year also saw the start of fee for service sites by practitioners Holmes and Needham, and, two years later another professional, Sansbury, began a website. These sites have seen hundreds of clients. Martha Ainsworth’s site, Metanoia, began tracking online counselors and created a directory of them. In 1998, over 200 online counselors were in business.

The “dot com” revolution of the late 1990s brought large amounts of venture capital into the promise of online counseling for profit (Grohol, 2003). Many therapists saw the internet as big business for their practices and attempted to capitalize on these developments. However, these large scale developments never became profitable and fell out of favor. For example, personal counseling sites such as here2listen.com seemed promising, with people such as Phillip Zimbardo on their advisory boards, but then closed a few years later. Other startups, such as HelpHorizons.com, remained in business, offering personal counseling over the internet for a fee. More recently, the internet
counseling landscape was filled with support groups, individual and group practices, websites, crisis services, and self-help programs administered via the internet.

Grohol’s (2003) review discussed many of the different forces that shaped internet counseling, and the field of Clinical Psychology is becoming one of these forces. The discipline has recently become engaged in examining the effect of computers and technology in their field, including a special issue of the *Journal of Clinical Psychology* on this topic (Caspar, 2004). This special issue covered a wide array of technological issues that are developing in the field of computer and internet counseling. Computer programs have been developed for common mental health problems that consumers can purchase and utilize in their homes, and there is evidence that these treatments produced large effects for users (Cavanaugh & Shapiro, 2004), while computer and virtual reality exposure treatments were being developed specific to anxiety problems (Anderson, Jacobs, & Rothbaum, 2004). Technology was also allowing therapists to monitor client treatment response with immediate feedback in order to improve client outcomes (Percevic, Lambert, & Kordy, 2004). Butcher, Perry, and Hahn (2004) explored how computers were utilized in the field of psychological assessment in actuarial, personality, neuropsychological, and computer adaptive testing. The authors also discussed how some people are putting such assessments online for a variety of purposes, and examined the issues of equivalency, norms, and test security. Beutler and Harwood (2004) discussed how the technology of virtual reality is being applied to psychotherapy training programs. Such programs can allow a therapist in training to virtually counsel clients with a variety of concerns and personal characteristics such as coping style, resistance, and amount of distress. These articles all showed how computers are being utilized to improve client
therapy. Many of the principles they discussed are also being used online, so that clients can access these developments from their homes.

In summary, online counseling grew out of a tradition of distance counseling in the field of applied psychology. In this sense, there is nothing novel about the approach of distance counseling, yet the technology used to make it work is new to practitioners. The development of computers which became linked to one another via networks allowed people to communicate through new means of email, instant message, and bulletin boards. Communities developed, and people made connections through these new means. Some practitioners set up websites for psychoeducational purposes, while others began businesses treating clients online. A small but significant proportion of psychologists is now experimenting with online counseling, and, with a broader research base, may continue to make innovative changes to the field. This history provided a context for understanding online counseling, and next, the field of telehealth is considered since internet counseling is one particular branch of telehealth services.

**Online Therapy as part of growth in the field of telehealth/telemedicine**

Online therapy is actually one subset of a larger development of telehealth/telemedicine/e-health interventions. Sood et al. (2007) defined telemedicine as use of communication networks for delivery of healthcare services and medical education from one geographical location to another to overcome issues like uneven distribution and shortages of infrastructural and human resources. The President’s New Freedom Commission on Mental Health discussed the role of telehealth for the nation’s mental
health needs. The Commission stated that “a robust telehealth system to improve access to care is critical to transforming the mental health system in America” (p. 22). The report also included a goal of using “health technology and telehealth to improve access and coordination of mental health care, especially for Americans in remote areas or in underserved populations” (p. 22). With telehealth potentially playing a central role in the future of America’s mental health system, online therapy can play an integral role.

Although online therapy is still in its infancy, the related telehealth field of telephone counseling has been around for a longer period of time. The following will discuss the rise of telehealth services in psychology, the development of telephone counseling, and another telehealth field in its infancy, videoconferencing services, as well as current telehealth applications being explored.

Telehealth, or “e-health” provided through the internet, is on the rise (Griffiths, Farrer, & Christensen, 2007). For example, results of a Delphi poll of 62 psychotherapy experts revealed what therapists predicted would happen to the future of psychotherapy over the next decade (Norcross, Hedges, & Prochaska, 2002). These results suggested that “computerized therapies” were ranked 5th out of 38 interventions in terms of amount of expected growth in the next decade. Results also showed that internet therapy services and telephone therapy services were 2nd and 4th, respectively, in terms of predicted growth. Finally, results revealed that growth in telehealth services was the 6th most predicted event for the next decade. In addition, a recent APA study showed that, in the decade from 2000 to 2010, psychologists’ use of email to provide services more than tripled, while use of videoconferencing went from 2% to 10% (APA, 2010). Although the
use of internet chat rooms has not increased, it was still used by 1% of practicing psychologists.

Whereas psychologists predicted that telehealth interventions would increase in the future, other statistics showed that only a small minority of psychologists practiced telehealth services. VandenBos and Williams (2000) surveyed psychologists about their use of telehealth in their practice. The researchers surveyed 1,000 APA members and received responses from 596 of them. The vast majority (98%) of these members said they provided telephone telehealth service at some point, but only 2% reported using Internet, satellite, or closed-circuit television telehealth services. The telephone was used to provide referrals (91%), emergency care (79%), consultation and education (71%), individual psychotherapy (69%), clinical supervision (58%), intake or diagnostic evaluations (30%), and group or family therapy (23%). Such results are not surprising, given that the telephone has been around much longer than the internet and has had more time to be integrated into professional practice.

Part of the reason for the lack of psychologists engaged in telehealth is the ambiguous nature of the new field. To help establish psychology in telehealth, Reed, McLaughlin, and Milholland (2000) outlined ten interdisciplinary principles for telehealth and psychology. These core principles were meant to be a base for site specific and profession specific policies. These principles were: 1) The standards of care in a profession do not change with telehealth technology; 2) confidentiality is essential; 3) informed consent should be adequate for these particular services; 4) services should be of the profession’s standard of quality; 5) each profession must examine how its delivery of service is altered with telehealth technology and ensure competence in these matters; 6)
documentation must be appropriate; 7) guidelines based on empirical evidence and professional consensus should be developed; 8) maintenance of the therapeutic relationship should be attended to; 9) there should be no need for additional licensing with telehealth; and 10) safety of all parties should be ensured based on competence and safe technologies. Such principles provided a backbone to psychologists engaged in this new area of service delivery.

Stamm and Perednia (2000) discussed ways to evaluate telehealth services. These authors suggested that telehealth systems have two distinct components, a technological component—involving data, equipment, transmission, and programming—and a human component, involving training for counselors, informatics, consultation/supervision, and types of services provided. These authors argued that telehealth systems should be evaluated for their service utilization, quality of life, and level of functioning aspects. A telehealth evaluation should include four critical times: Baseline, needs assessment, process, and outcome. A baseline measure involved understanding the current state of affairs, whereas a needs assessment allowed an organization to understand what it needs and decide if telehealth can provide for those needs. Although outcome data were most typical in evaluations, providing evidence if telehealth works or not, process research was important to understand how providers and patients view the system in order to modify and improve it. All four sources of evaluation provided critical information for a telehealth intervention.

In addition to professional guidelines and considerations, laws are shaping the future of psychology in telehealth. Koocher and Morray (2000) examined the legal developments in telehealth laws that vary from state to state. These researchers surveyed
state attorney generals about their state telemedicine laws. Surveys were sent to all state attorney generals, plus the District of Columbia, in 1999. Responses came back from 42 of these jurisdictions. Four states had telehealth regulating statutes (Georgia, Nevada, Oklahoma, and Tennessee). Only three states (Kansas, Nevada, and Tennessee) had regulations in their licensing agencies addressing the practice of telehealth via telephone, Internet, or other media. The vast majority of states (93%) said that mental health via these telehealth means was not currently regulated, with only one state (identity unknown) having such regulations in place. Seven states (identities unknown) indicated that they were considering such regulations. Two attorney generals (California and Oregon) indicated that charges had been brought against practitioners for using electronic means of psychotherapy, whereas seven (California, Maryland, Nevada, New Jersey, North Carolina, Ohio, and Oregon) said they had received complaints about psychotherapy being delivered across state lines by electronic means. A split occurred between some attorney generals who believed their states had regulatory authority over mental health services provided from other states (45%) and those who did not claim such authority (33%). The authors noted that these results provide a good overview of laws in place during 1999, but there may have been much change since that time. These results highlighted the uncertain nature of the telehealth field that is vastly complicated by the variety of state laws. Further examination of the literature did not discover any further research on telehealth state laws.

The previous studies provided an overview of trends in the field of telehealth. The next studies examined specific telehealth modalities. One type of telehealth intervention is the telephone. Psychologists have been exploring the use of the telephone in the field
of telehealth for some time. Rosenblum (1969) was the earliest in the literature to consider telephone therapy. He argued that “we should not be so dogmatic as to attempt to have all patients relate in a face to face contact” (p. 241). Rosenblum posited that some individuals did not like closeness and would prefer the distance that telephone counseling would offer; these people included those diagnosed with psychosis, depression, schizophrenia, phobias, and those who were generally withdrawn and isolated. He also argued that some patients just needed some reassurance every once in a while and this could be accomplished via phone, thus saving time and energy from traditional psychotherapy. Since his theorizing, research has examined the efficacy of telephone therapy.

The universality of the telephone in modern life had caused mental health workers to consider how it can be used to provide services and access clients who may be difficult to reach due to their residence, location distance, access to family members, physical disability, or psychological resistance (Ranan & Blodgett, 1983). Similar claims have been made about the applicability of online services (Sanchez-Page, 2005). The next studies showed that telephone services are effective, although further research is needed to examine this outreach efficacy for both telephone and online services.

Telephone counseling has been shown to be effective (Reese, Conley & Brossart, 2002). These researchers conducted an effectiveness study of real world clients of a telephone counseling service of an Employee Assistance Program that utilized solution-focused therapy. A survey was sent out to clients of a private telephone counseling agency. The sample had a 38% return rate and consisted of 186 participants. Participants were 73% female, 76% White, and the median number of telephone counseling sessions
was three, ranging from one to 99 sessions. The researchers compared this data to Seligman’s 1995 *Consumer Reports* (CR) study of face-to-face counseling to determine the relative effectiveness of telephone counseling. The Consumer Reports Annual Questionnaire (CRAQ) had three sub-scales: Specific Improvement, Global Improvement, and Satisfaction. Participants completed the CRAQ, Working Alliance Inventory-Bond Scale (WAI-B), Counselor Rating Form- Short Version (CRF-S), and demographics.

A MANOVA found no differences between clients who completed counseling and those who did not on effectiveness, so the groups were combined (Reese, Conley & Brossart, 2002). The majority of telephone counseling clients (80%) had some specific improvement. The specific improvement score for telephone clients (77.4) was significantly lower than the CR group (82), but there was only a small effect size (Somer’s d = .07, p = .003, r = .10). Global improvement for telephone clients (61.5) was slightly lower than CR (64) but there was no statistical comparison. Only 5% of telephone clients were dissatisfied, and the telephone clients (79.35) were significantly more satisfied than the CR study (75), again yielding a small effect size (Somer’s d = .05, p = .04, r = .06).

ANOVA results found that the telephone had significantly lower outcomes for the worst functioning clients than the CR’s worst functioning clients (Somer’s d = .05, p = .000, r = .12) (Reese, Conley & Brossart, 2002). To examine social influence, results for telephone clients were compared to Corrigan and Schmidt (1983). Results found that telephone counselors have the same social influence as face-to-face ones since no t test comparisons were significant. Telephone clients rated their counselors as no different than face-to-face clients on Expertness (t(154) = .11, p > .05), Attractiveness (t(154) = .13, p > .05), and Trustworthiness (t(154) = .05, p > .05).
To examine differences in therapy bond, telephone clients were compared to Mallinckrodt, Coble, and Gantt (1995; Reese, Conley & Brossart, 2002). Results found no differences in the therapeutic relationship, since both telephone and face-to-face clients had non-statistically different WAI-Bond scores \((t(245) = 1.33, p > .05)\). The WAI-Bond and Social Influence variables both significantly predicted outcome in regression \((F(2, 152) = 22.69, p < .001)\), with a medium effect \((R^2 = .23)\). Finally, ANOVA results for telephone clients showed that longer treatment had significantly better outcomes than shorter treatment \((F(3,178) = 4.48, p < .01)\).

Overall, results of Reese and colleagues (2002) showed that clients rated telephone counseling as effective as did their face-to-face counterparts, a major source of support for the legitimacy of this counseling modality. Face-to-face counseling did have superiority in some areas, such as for outcomes with the lowest functioning clients, an indication that these different modalities may be recommended for different types of clients. Although these results cannot be directly applied to the modality of online counseling, given the different conditions of therapy, these results do point to the effectiveness of non-face-to-face counseling options.

The emerging field of telehealth involves many other technologies than just the telephone. A major component of this field is videoconferencing, where one professional can interact with another or a client from a distance. Jerome and Zaylor (2000) discussed the practice applications of videoconferencing through interactive televideo (IATV). The authors discussed how IATV services create new communication since there are less social cues and senses involved in this medium. There are also different environments to IATV. For example, IATV is a two-dimensional, rather than a three-dimensional, space.
The quality of audio and video feed, as well as lags in the videoconferencing stream, and environmental factors, such as lighting, background, movement, and distance and location from the camera, all affect sessions and need further research. The authors also discussed human factors, such as new code/scripts of behaviors, that videoconferencing influenced. All of these factors make videoconferencing different than face-to-face sessions and it requires its own research paradigm.

The next sections will examine some specific applications of videoconferencing telehealth in applied psychology. The field of rehabilitation psychology was experimenting with using telehealth technology to reach persons with disabilities with whom it is hard to establish normal clinic hours due to their health conditions. Hufford, Glueckauf, and Webb (1999) compared how children with epilepsy and their families felt about three different treatment modalities: Videoconferencing in the home, speakerphone systems in the home, and office video tape. This research was limited due to its small sample size of three mothers and three adolescents. Across all three modalities, all participants experienced moderate comfort, low distraction, and moderate therapeutic alliance. Additionally, the adolescents expressed more comfort and less distraction than the adults in all conditions, a possible age effect of counseling. These results need to be verified in larger samples, but the lack of differences in modalities indicates that telehealth interventions may be applicable for clients who have difficulty coming to counseling in person due to disability or home location.

The military was at the forefront of telehealth applications (Clement, Brooks, Dean & Galz, 2001). The authors described the operation of a military-based neuropsychological telemedicine clinic which utilized videoconferencing to connect the
base hospital to regional ones without certain services. In this study, the researchers assessed 32 neuropsychological patients for assessment and follow-up via videoconferencing. A total of 87 sessions were conducted in this manner. The authors argued that, from their qualitative experience, this method was effective since users expressed approval for these services. These authors also noted how the military system allowed greater freedom for their state licensed professionals to get temporary privileges to work with patients residing in other states via the videoconferencing.

The United States prison system is also using videoconferencing telehealth services. Magaletta, Fagan, and Peyrot (2000) examined the perceptions of federal inmates in using videoconferencing for mental health assessments by psychiatrists located in remote locations. This was a three year pilot program that was implemented and expanded after being found to be effective and cost saving. The authors noted the importance of technological aspects in doing this work, such as audio feed over visual, as well as having high bandwidth in order to slow delays. Most inmates rated this telehealth condition positively (81%), said they would use it again (83%), and indicated they would recommend it to other inmates (71%). Perceptions of inmates who had received face-to-face treatment previously revealed that almost half (46%) of these rated the telehealth condition as the same as face-to-face, 35% rated telehealth as better, and 19% rated it as worse. Perceptions of telehealth improved over time, with a significant correlation between the first and last sessions ($r(33) = .20, p = .02$). The authors hypothesized this effect occurred because telehealth participants got more comfortable with the novel medium.
Some individual differences in satisfaction were shown in this study (Magaletta, Fagan & Peyrot, 2000). Clients diagnosed with thought disorders were significantly more satisfied with telehealth service than clients diagnosed with affective disorders when compared to face-to-face services ($t(41) = 2.79, p = .008$). The authors hypothesized that this was due to the nature of control of environment through this medium, in which clients with thought disorders liked more and clients with affective disorders liked less. The authors also discussed how clients diagnosed with Axis II disorders refused treatment, often due to fear of taping or delusions. These results from this large-scale, federal project showed that telehealth services can be successfully implemented into existing sites of therapy services. In addition, prisoners were mostly positive about these services and rated them comparable to traditional services. Some inmates did not like this telehealth service, and these individual differences need to be further explored to understand who will desire and benefit from these services so appropriate referrals can be made.

In another examination of telehealth’s effectiveness, Schopp, Johnstone, and Merrell (2000) used 49 matched face-to-face controls for 49 clients using videoconferencing for neurospychological assessment. ANOVAs revealed that providers significantly preferred in-person assessment to videoconferencing ($\chi^2(1, N = 98) = 8.59, p < .01$). The authors also calculated different cost effectiveness scenarios, showing savings for video condition over face-to-face conditions. Videoconferencing clients were significantly more likely to want to repeat the experience than did the in person clients ($\chi^2(1, N = 98) = 3.8, p < .05$). The groups did not differ on global satisfaction ($\chi^2(1, N = 98) = 0.25, ns$), communication ease ($\chi^2(1, N = 98) = 0.28, ns$),
level of relaxation ($\chi^2(1, N = 98) = 1.33, ns$), or rating of psychologist caring ($\chi^2(1, N = 98) = 0.29, ns$). A regression showed that there was no statistical difference for the amount of distance traveled and satisfaction ($\chi^2(1, N = 98) = 0.08, ns$). These results revealed that, while providers may not prefer videoconferencing to face-to-face assessment (possibly due to the novelty of this approach), clients felt similarly about the two conditions, and even preferred to repeat the videoconferencing condition. These researchers also showed how videoconferencing is cost effective when compared to face-to-face services, supporting the economical argument for telehealth services.

Overall, the literature on the field of telehealth interventions indicated that the application of technology to mental health services was possible and was being explored. The government and private sector were looking toward these telehealth innovations to improve the standard of care, reach underserved populations, and reduce costs. The field of telehealth involved use of the telephone, videoconferencing, and internet counseling modalities. Studies on the use of telephone and conferencing in this review revealed that these modalities are effective in their outcomes and were satisfying to clients. Studies specific to online therapy will be discussed on their own in a later section. Next, the ethical implications of online counseling are considered.

**Ethics**

A prerequisite for online counseling to be provided to clients is that it is deemed ethically acceptable. A literature base has developed over the past decade debating and considering the ethical issues involved with this counseling medium (Sampson,
Kolodinsky, & Greeno, 1997; Bloom, 1998). Professional organizations such as the National Board of Certified Counselors, American Counseling Association, International Society for Mental Health Online, and the American Psychological Association published ethical codes and standards about online counseling to provide online therapists with ethical guidance. This section will review the development of ethical codes in online counseling, discuss pertinent ethical issues in the literature, and examine what ethical practices are being conducted in the field.

Initially, theorists were wary about online counseling due to concerns about confidentiality, privacy, data validity, competency, and other factors (Sampson, Kolodinsky, & Greeno, 1997). After further attention to these matters, most ethicists determined that online counseling can be practiced in an ethical manner and organizations created codes and rules. The American Counseling Association (ACA; 1999) and National Board of Certified Counselors (NBCC; Bloom, 1997) have both developed ethical principles for online counseling. The American Psychological Association (APA; 1997) drafted a preliminary statement on teleconferencing and internet services, which stated that all ethical codes pertain to these modes of service delivery as well. This statement was overridden by the new 2002 ethics code which integrated electronic counseling means into specific ethical mandates (APA, 2002). A new organization call the International Society of Mental Health Online drafted its own ethical provisions for online services. In drafting these codes, these organizations suggested that online counseling is indeed possible if certain steps are first taken to ensure ethical mandates.
The first organization to promulgate a statement on online ethics was the NBCC (1997). In discussing the NBCC’s development of online counseling ethics, Bloom (1998) highlighted eight major ethical areas to be addressed for ethical online counseling. These areas covered confidentiality, credentialing, privacy concerns, internet access equality, issues of counseling clients from different geographical regions, misuse of computer applications, competency in online interventions, and the validity of data received electronically. The debate within this organization led to the publication of the *Standards for the Ethical Practice of WebCounseling* (Bloom, 1997). In discussing NBCC’s decision to draft ethical standards, a member of the committee stated, “to simply say that it is unethical to practice on the Internet is shortsighted in light of the rapid worldwide growth of Internet use” (Morrissey, 1997, p. 8). The NBCC standards emphasized informing clients about encryption methods used during data transfer, how data from sessions is preserved, ways to correctly identify clients so as to remove the threat of imposters, providing links to certification/licensure of the online therapist to prove credentials, mentioning issues inappropriate for internet counseling, and discussing technology failure, among other issues.

Two years after NBCC published its standards, the American Counseling Association published a statement separate from the organization’s main ethical code entitled, *The Ethical Standards for Internet Online Counseling* (1999). These standards included the major areas of confidentiality, establishing the online therapeutic relationship, and legal considerations. These standards also required a “client waiver” that informed clients of confidentiality limitations with internet communications and waived their confidential privileges given this risk. Clients who refused such a waiver
were then referred to traditional counseling avenues. The ACA standards were noted to be stricter than NBCC’s since they mandated encryption of online communication (Attridge, 1999).

In its recent revision of the *ACA Ethics Code* in 2005, the organization removed these separate standards and folded them into Standard A.12, “Technology Applications.” This standard covered when to use technology assisted services, assessing a client’s appropriateness for such services, complying with laws, special technology informed consent issues, and maintaining websites on the Internet. The mandated waiver was removed and replaced with a statement to inform clients about confidentiality and use of encryption to establish confidentiality of data.

The APA also delved into the issue of online counseling. In 1997, the APA produced a statement on telehealth technology and provision of mental health services. This stated:

“The Ethics Code is not specific with regard to telephone therapy or teleconferencing or any electronically provided services as such and has no rules prohibiting such services [and that] complaints regarding such matters would be addressed on a case by case basis” (p. 1).

Similar to what the ACA did in its *Ethics Code* revision, the new APA Ethics Code (2003) was explicit in mentioning that it applied to all mental health contexts, including telehealth. It removed the 1997 statement and incorporated language about telehealth counseling throughout the code. Specific mention of electronic transmission and the Internet were found in four standards (Mallen, Vogel, & Rochlen, 2005). These standards were 3.10 Informed Consent, 4.02c Discussing Limits of Confidentiality, 5.01 Avoidance of False or Deceptive Statements, and 5.04 Media Presentations.
Advocacy groups also weighed in on online counseling ethics. The International Society for Mental Health Online (ISMHO) formed in 1997 as an interdisciplinary advocacy group to promote services conducted online. Its mission statement stated that the group was formed "to promote the understanding, use and development of online communication, information and technology for the international mental health community" (http://www.ismho.org/mission.asp). In 2000, ISMHO established its own principles for providing online services. These principles involved the three major areas of informed consent, standard operating procedures, and dealing with emergencies.

In reviewing the newly released NBCC and ACA ethical standards relating to online counseling, Attridge (2000) discussed some of the major ethical themes to consider when dealing with online counseling. These issues involved the therapeutic relationship, client confidentiality, informed consent, practicing across state lines, electronic medical records, and assessing suicide and homicide. Whereas internet counseling does involve special issues for each of these themes, Attridge provided some suggestions for ethically dealing with these issues. These suggestions included using emoticons or other compensatory techniques to build the therapy relationship, encryption of communication and credential checking to improve confidentiality, being clear about the limits of services in the informed consent form, and having emergency service information ready when working with people in different geographic locations. Attridge’s suggestions are just some of the ideas occurring in the field to improve ethical practice online.

With the release of specific standards for online counseling ethics, people wondered if online therapists were now actually engaging in these ethical practices. Shaw
and Shaw (2006) developed a 16 item ethical checklist from the ACA’s ethical code for online counseling. They then searched four internet directories as a consumer would, trying to find websites offering online counseling, and examined these sites for their adherence to ethical standards. Results showed that the authors found 166 sites in a two month period. Of these, 32 were no longer running a year later, leaving a final sample of 88 sites. Most providers of online mental health services had at least a Master’s degree, but only two-thirds were licensed or certified (7% psychologists). The highest number of stated associations was with the ISMHO. Most sites were hosted in the U.S. and based in large states, but some were in England, Canada, Australia, and Hong Kong. Of the services offered, 56% offered email and chat, 7% chat only, and 38% email only.

For ethical practices, less than half of counselors were following standards on at least half of the 16 items derived from the ACA code (Shaw & Shaw, 2006). The ethical guidelines with the greatest amount of compliance were providing full names (88%), the state of practice (79%), and listing degrees (75%). The guidelines with the lowest amount of ethical compliance were use of encryption (26%), use of a client waiver (32%), stating the internet is not secure (35%), stating no Internet service would be provided to minors (36%), having a required intake procedure (38%), and obtaining clients’ full names, addresses, and ages (45%). There was evidence that licensed practitioners had superior ethical compliance, but no statistics were run to compare practitioners directly. T-tests showed significant differences in ethical compliance existed for sites listing associations \( t(87) = -3.05, p = .0032 \), licensed counselors \( t(87) = -5.86, p < .0001 \), identifying state of practice \( t(87) = -4.66, p < .0001 \), and site address/telephone number \( t(87) = -3.67, p = .0004 \). Professionals who were licensed, members of associations or were upfront with
their professional information were more likely to engage in more ethical practices online. These results indicated that many professionals engaging in online practice may not be aware of, or might be refusing to engage in ethical standards.

Wiggins Frame (1997) explored the ethical issues of marriage and family counseling in light of the current ACA ethical code. The author noted areas of concern over privacy, confidentiality, and working in the family context online, but did not suggest that this work could not be done. Jencius and Sager (2001) also explored the role that online counseling will have in the discipline of marriage and family therapy. They discussed the relevant ethical and relationship issues in marriage and family therapy conducted online and concluded that many family clients see value in online counseling, especially with the new digital aspects of modern family life.

The ISMHO was particularly interested in researching the efficacy of online counseling. One of its activities is its "Clinical Case Study Group" that discussed important aspects of the field. Fenichel et al. (2002) presented a report of this group that addresses the myths and realities of online counseling. The group addressed such myths as: 1) online therapy is impossible, 2) it is entirely conducted via email, 3) text communication is inadequate to convey human experience, 4) crisis intervention online is impossible, 5) serious disorders cannot be helped online, 6) geography does not matter, 7) online therapy is limited to individual and group work, 8) online principles are the same as offline ones, 9) online training and supervision is not effective, and 10) experienced face-to-face therapists are competent to conduct online therapy. The rebuttals against these myths were the continuing focus of ISMHO as it sought to combat the prevailing belief that therapy cannot be effectively conducted online.
Coinciding with ethical concerns are legal ones. Since online counseling is a new entity, its legal status is still being debated. Arizona’s counseling and Minnesota’s social work laws already make explicit mention of using electronic means in service of the profession (Zack, 2008). Zack (2008) discussed the lack of relevant case law in the field of online counseling as adding to its unclear nature. This discussion also highlighted legal areas central to the practice of online counseling. These areas included licensure, legal duties (e.g., competence, consent, duty to warn, record keeping, and confidentiality), business issues (e.g., referral fees and third-party payments), and website issues. The Healthcare Insurance Portability and Accountability Act was another important legal requirement on the federal level that governs electronic transactions and records. Zack recommended that the unclear legal issues for online counseling should not prevent practitioners from engaging in it. Instead, these online counseling pioneers might need to look to existing laws for guidance and tread carefully since there is little history of legal advice for the provision of these services.

States began to pass laws related to online counseling. In 1996, California passed the Telemedicine Development Act, the first state to pass a law regulating telemedicine. The issue of what state licenses will be applicable to the provision of online counseling across state lines will probably not be resolved until “telehealth licensure portability is established” (Zack, 2008, p. 355). Professional fields are creating new standards and credentials to show competence in web counseling. The NBCC is now also offering a new credential in distance counseling.

In sum, since the publication of the NBCC’s online guidelines in 1997, the ethical issues of online counseling have been discussed in professional circles. Major
psychotherapy organizations, such as the ACA and the APA, as well as advocacy groups such as the ISMHO, have published standards and guidelines to assist online therapists in their uncharted work. With the publication of these standards, these organizations have given the implicit acknowledgement that online therapy can be ethically done. With professional opinion now supporting online counseling’s ethics, research is forging ahead with understanding the process and outcomes of this therapy. The next section will examine research examining the therapeutic relationship in online counseling.

**Online Therapeutic Relationships**

Researchers have sought to show that the therapeutic relationship found to be central in traditional, face-to-face counseling (Duncan, Miller, Wampold, & Hubble, 2010) also exists in online counseling. A few preliminary research studies have shown that clients in online counseling reported positive working alliances using scales such as the Working Alliance Inventory. The unique aspects of online counseling facilitate some aspects of therapy while making other aspects more difficult. Thus, the online working relationship is similar to, yet different from, face-to-face counseling. As such, it should not be simply viewed as an extension of traditional counseling relationships. This section will first discuss particular aspects of the online relationship that make it different from face-to-face counseling. Next, it will review the findings of analog research studies which try to approximate online conditions. Finally, it will examine the findings from research on actual online relationships.
Online relationships have unique aspects that make them different from their face-to-face counterparts. Online relationships may be subjected to the online disinhibition effect (Suler, 2004), in which people engaging in online communication experience greater ease in discussing difficult subjects, feelings, etc. Suler examined some of the factors that lead online communication to be different from face-to-face. These factors were: Dissociative Anonymity (believing that a person’s behavior cannot be traced to him/her), Invisibility (not having to worry about how one physically appears, looks, or sounds), Asynchronicity (not having to respond immediately or cope with a person’s immediate reaction), Solipsistic Introjection (becoming one with another; sensations of transference), Dissociative Imagination (escaping into an imaginary online environment), and Minimization of Status and Authority (power wielded by others is less likely to be felt online). This disinhibition online can work in two ways, either through benign (e.g., intense sharing, kindness, or generosity) or toxic (e.g., flaming behavior, rudeness, criticism, anger) methods. It is this benign type of disinhibition that allows clients to open up through online counseling and may make it easier to discuss troubling or embarrassing aspects of their selves.

Suler also discussed the importance of individual differences and predispositions in determining how this disinhibition effect is experienced. Suler concluded that this disinhibition does not necessarily make one more like one’s “true” self online, but rather allows one to shift aspects of one’s self in different ways. This theory awaits empirical confirmation, but online counseling theorists often refer to it to explain the dynamics of online therapy relationships (Richards & Tangney, 2008; Skinner & Latchford, 2006).
Other researchers have discussed the different aspects of online therapy relationships. For example, Shultze (2006) reported part of a large-scale longitudinal study of educational counseling for parents and teenagers conducted via email in Germany. The author discussed aspects of this counseling that allowed the internet-based counseling to be successful. These aspects were anonymity, protecting self-assurance, projection of an idealized counselor, “balancing effect” (creation of a more unbiased and self-exploring sense in the client), intentions to change, and intensified transfer of consulting contents. Shultze went on to claim that incorporating video (via videoconferencing) into these counseling sessions would remove these beneficial effects of the online medium. The author argued that the unique aspects of online counseling are what made it beneficial in this case.

At the heart of common factors approaches to counseling is the importance of the working alliance (Duncan, Miller, Wampold, & Hubble, 2010). The construct of working alliance has been well studied in traditional, face-to-face counseling and has been shown to contribute to therapeutic change. Online counseling theorists also discussed the importance of the working alliance for online work (Cook & Doyle, 2002; Leibert, Archer, Munson, & York, 2006; Prado & Meyer, 2004). The following examines research on how such an alliance operates in online counseling.

In one such study, Mallen, Day, and Green (2003) used an analog design to examine the different aspects of face-to-face and online counseling. They randomly assigned 64 students into 32 pairs in either face-to-face or online chat conditions and then had them interact for 20-30 minutes. The researchers measured emotional understanding, self-disclosure, closeness, and depth of processing after the interaction. People in the
face-to-face condition ($M = 5.18, SD = .80$) were significantly more satisfied with the experience than those in the online condition ($M = 4.53, SD = 1.2$), and face-to-face participants ($M = 4.50, SD = 1.42$) reported a significantly higher level of closeness to their partner than did the online participants ($M = 3.2, SD = 1.71$; additional statistics on significance values not reported). Face-to-face participants rated significantly higher both the positive and negative affect of their partners, but after controlling for the correlation between self and partner, the groups’ ratings no longer differed on understanding each other’s emotions (statistics not reported).

Results of Mallen, Day, and Green (2003) also found more conflict reported in the online group ($M = 1.4, SD = .80$) than the face-to-face group ($M = 1.1, SD = .50$). For both groups, satisfaction significantly correlated with closeness ($r(64) = .52, p < .001$). Satisfaction was significantly correlated with length of conversation in the face-to-face group ($r(20) = .54, p = .02$), but not the online group ($r(30) = .25, ns$). Satisfaction significantly correlated with less conflict present in the online group ($r(63) = .38, p < .01$).

Level of self-disclosure between partners had higher levels of agreement in the online group ($r(29) = .52, p < .004$) than the face-to-face group ($r(34) = .29, p < .10$). Amount of time using email and IM had a trend toward a negative correlation with self-disclosure in the face-to-face group ($r(34) = -.33, p < .06$) but not the online group ($r(28) = .23, ns$). The number of email or chat partners was significantly related to closeness in the online group ($r(29) = .37, p < .06$) but not the face-to-face group ($r(33) = -.16, ns$).

These results showed that online communication was different from face-to-face communication in meaningful ways and that the two modes of online communication are conceptually different. The level of closeness and satisfaction was lower in the online
group, which due to the slower nature of online communication, may require more time to reach the same levels as the face-to-face group. The authors also noted that people with more email and chat partners had more closeness and self-disclosure during the online interaction, indicating that either familiarity with technology or personality differences led to this effect.

In another analog study, Day and Schneider (2002) examined outcomes and working alliance levels in face-to-face, audio, and videoconferencing conditions of therapy. Clients were recruited from the community and randomly assigned to one of the three therapy conditions or a control group. The groups were similar in GAF scores, Symptom Checklist means, and presenting concerns at pretreatment. Ninety-one clients started treatment, eleven dropped out, leaving a final sample of treatment completers at 80 (27 in face-to-face, 27 in audio, and 26 in video). There were no differences in the number of drop outs amongst the groups ($\chi^2(2, N = 80) = 1.13, \text{ns}$). Clients had five treatments of Cognitive Behavioral Therapy in their modality of counseling. The working alliance was assessed with three observers examining the fourth session and rated the session with the Vanderbilt Psychotherapy Process Scale’s subscales of Client Participation, Client Hostility, and Therapist Exploration. Outcomes were measured with the Brief Symptom Inventory, Global Assessment of Functioning, the Target Complaints method, and a modified Client and therapist Satisfaction Scales.

A MANOVA found statistically significant differences among the groups on the alliance variables ($F(6,150) = 2.51, p < .05$; Day & Schneider, 2002). Follow-up pairwise comparisons with Bonferroni adjustment analyses revealed that audio ($M = 4.15$) and video ($M = 4.19$) conditions had more client participation than did the face-to-face
condition \((M = 3.99)\). All three treatments were better than the control group in improving psychological outcomes \((F(12, 265) = 1.82, p = .01)\). A second MANOVA revealed no significant differences in the three treatment modalities on the outcome variables \((F(12,144) = .67, p > .15)\), indicating similar effects. A significant positive correlation was found between working alliance and outcome when all the conditions were combined together \((r = .22, p = .05)\). Working alliance was not related to outcome in any of the individual conditions separately due to small sample sizes (statistics not reported).

These results indicated that video and audio telehealth counseling conditions were similar to face-to-face conditions in both outcomes and working alliance; two of the major foundations for counseling’s legitimacy. While not directly examining an online modality, these results bolstered the support that an alliance is created in new telehealth counseling modalities and that these modalities have outcomes similar to face-to-face interventions. The validity of these results is supported by the real world nature of this study using randomly assigned community clients and multiple sessions of therapy.

In another working alliance study, Prado and Meyer (2004) examined the efficacy and working alliance in online therapy as part of a project in Brazil. These researchers created a web portal to examine working alliance in internet therapy. The researchers recruited therapists to participate in the project through direct mailing, while a news release made the information about enrollment in the project known to the public. The project had 373 clients sign up to take part in this therapy as well as 20 interested therapists. Of these, 53 clients and 16 therapists participated. Of the 53 different therapies, 29 were completed, while 23 were uncompleted. The sample of clients was 70% female,
55% single, and had a median age of 28. The working alliance was examined via the Working Alliance Inventory (WAI) at the fifth week. Both therapists and clients rated the working alliance. Results showed that an alliance was formed at the fifth week and remained stable throughout the 15 weeks of therapy.

Prado and Meyer (2004) also noted that the WAI scores from these online therapies were similar to those found in face-to-face therapy. Prado and Meyer found mean WAI scores between 5.4 and 5.6 (compared to 5.16 to 6 in face-to-face). The Bond subscale was between 5.79 and 5.88 (compared to 5.59 and 5.90). The Task subscale was between 5.41 and 5.54 (compared to 5.53 and 5.66). The Objectives subscale was between 5.05 and 5.31 (compared to 5.43 and 5.52). The means of the WAI were not significantly different compared to the means from face-to-face research. Clients who completed therapy showed significantly higher WAI scores than those who dropped out (F(2,26) = 10.15, p < .01). Therapist ratings between completed and drop out groups did not significantly differ on WAI scores (F(1,24) = .61, ns). Client WAI thus predicted therapy participation, whereas therapist ratings did not. The authors concluded that a working alliance was formed and maintained via the internet similar to non-internet therapy studies.

In another one of the few studies to attempt to measure the working alliance in actual online counseling, Cook and Doyle (2002) compared working alliance scores for online counseling and face-to-face data. Online counselors were contacted from lists of such professionals and posts were made in ISMHO websites. From the 100 online counselors that were contacted, sixteen agreed to participate, and only five therapists were in the final sample. These researchers had online therapists post a link on their
webpage or email an announcement to clients directing them to the study site. Fifteen clients (one male and fourteen women) were included in the final sample, using either chat or email modalities for counseling. Participants’ working alliance was measured with the Working Alliance Inventory (WAI) which produces a Composite score as well as three subscales: Task, Bond, and Goal. Participants also completed a demographics measure and the opportunity to leave qualitative comments about their experience.

The WAI scores from Cook and Doyle’s (2002) online client sample were compared to the initial WAI validation sample (Horvath, & Greenberg, 1986) scores of face-to-face clients ($N = 25$). The authors also compared the WAI scores from that validation study to four different studies that used the WAI, determining that this validation sample, although small, was representative of WAI scores in general. Comparisons were made with single sample $t$ tests between the groups. The online group had significantly higher Goal ($t(14) = 3.04, p < .01$) and Composite ($t(14) = 2.31, p < .05$) scores on the WAI than did the face-to-face group. There were no other significant differences between the groups on either the Bond ($t(14) = 1.6, ns$) or Task ($t(14) = 1.3, ns$) scores. No significant differences were found between online clients who primarily used chat or email modalities (actual statistics not reported). Clients who only used one modality for online counseling did not have significantly different WAI scores from clients who used two different types of online modalities (actual statistics not reported). An ANOVA comparing WAI scores for three different categories of presenting problems for online counseling (depression, relationships, and other) found no statistical differences amongst the groups (actual statistics not reported).
Qualitative comments were available from nine clients about advantages of online therapy (Cook & Doyle, 2002). The authors found seven themes from the comments. Clients said that they found online therapy to be viable, disinhibiting, cost effective, beneficial for those who are isolated regionally or have mobility problems, created a good therapeutic relationship, cited advantages of written communication, and noted the convenience/flexibility of the modality. These results comparing actual online clients to face-to-face clients showed that a working alliance could be created in the online counseling relationship that was similar to traditional alliances. More studies are needed to examine the working alliance in online counseling, but Cook and Doyle showed that a working alliance does appear to exist in this counseling relationship. Their sample was small, which makes generalizability difficult, although their results are promising for future studies.

In a preliminary analysis of online therapy session impact and alliance, Reynolds, Stiles, and Grohol (2006) found support for the similarity of online and face-to-face therapy modalities. The researchers recruited therapists and clients from private online practices and discussion boards. Therapists and clients could participate together as a dyad or independently as just a therapist or client alone. The researchers had online therapists \( (N = 16) \) rate a total of 178 therapy sessions and clients \( (N = 17) \) rate 205 sessions. Therapist-client dyads made up 98 of the rated sessions. Session impact was measured with the Session Evaluation Questionnaire (SEQ), and the working alliance was rated with the Agnew Relationship Measure (ARM). Participants completed the measures weekly regarding their online therapy session. Results were compared to previous results of these measures in the literature.
Reynolds, Stiles, and Grohol (2006) found the means of both SEQ and ARM measures fell within the previously discovered range of face-to-face means for these measures established in the literature (nine SEQ studies and three ARM studies). For client ratings on the SEQ, the Depth scale ($M = 4.78$) fell between the literature range of 4.65 and 5.85, the Smoothness scale ($M = 4.28$) fell between the literature range of 4.13 and 5.28, the Positivity scale ($M = 4.39$) fell between the literature range of 4.38 and 4.88, and the Arousal scale ($M = 4.03$) fell between the literature range of 3.82 and 4.40. For client ratings on the ARQ, the Bond scale ($M = 5.97$) fell between the literature range of 5.88 and 6.43, the Confidence scale ($M = 6.19$) fell between the literature range of 5.74 and 6.29, but the Openness scale ($M = 5.27$) did not (literature range of 5.39 and 5.76).

For therapist ratings on the SEQ, only the Arousal scale ($M = 4.14$) fell between the literature range of 3.95 and 4.58, while the Depth scale ($M = 5.23$) was above the literature range of 4.25 and 5.10, the Smoothness scale ($M = 4.80$) was above the literature range of 3.86 and 4.52, and the Positivity scale ($M = 5.39$) was above the literature range of 4.38 and 5.16 (Reynolds, Stiles, & Grohol, 2006). For therapist ratings on the ARQ, the Bond scale ($M = 5.72$) fell between the literature range of 5.24 and 5.89, the Openness scale ($M = 4.73$) fell between the literature range of 4.47 and 5.70, while the Confidence scale ($M = 5.76$) was above the literature range of 4.85 and 5.31. No inferential statistics were conducted.

Despite the lack of statistical comparison these similarities indicated that online counseling had similar processes to face-to-face therapy. A number of established studies that used these measures were chosen for comparison and the online therapists and clients were within or above the range of face-to-face means, except on ARM-Openness which
was below the range. This study added support for the existence of an online therapeutic relationship.

As part of an effectiveness study on real-world counseling, Murphy et al. (2009) compared the Global Assessment of Functioning (GAF) outcome score and client satisfaction self-reports from 45 online and 43 face-to-face clients of a Canadian employee assistance program. Online counselors had been working in this modality for extended periods of time and had training in the modality, improving their ability to provide appropriate counseling services online. Clients self-selected into which condition they wanted for counseling. A GAF score was recorded by the counselor at the beginning and end of therapy. An ANOVA revealed that the GAF scores in both modalities significantly improved with treatment ($F(1,250) = 43.19, p < .0001$). Another ANOVA revealed that the online clients had significantly higher GAF scores than did face-to-face clients at the start of treatment ($F(1,250) = 7.98, p = .005$). There was not a significant interaction of GAF assessment and time for the two conditions ($F(1,250) = 0.33, p = .56$); thus, both conditions provided significant change for clients.

Murphy et al. (2009) also analyzed the results of the Client Satisfaction Survey, an unvalidated outcome measure of treatment satisfaction. Of the ten items on this measure, significant differences were found between the counseling modalities on five items. These items were: my overall counseling experience was positive (online $M = 4.2 SD = .1$, face $M = 4.7 SD = .1, p = .017$), my experience with the EAP met my expectations (online $M = 4.1 SD = .2$, face $M = 4.5 SD = .1, p = .035$), I feel this is a valuable benefit (online $M = 4.3 SD = .2$, face $M = 4.8 SD = .1, p = .013$), the issues that led me to seek assistance interfered with my home life (online $M = 4.2 SD = .1$, face $M = 4.1 SD = .1, p = .047$).
4.6 $SD = .1, p = .026$), and the issues that led me to seek assistance interfered with my work life (online $M = 3.6$ $SD = .2$, face $M = 4.1$ $SD = .2, p = .049$) The non-significant items dealt with working alliance and improvement outcomes. These items were: my counselor helped me feel comfortable in discussing my problems, my counselor’s efforts and suggestions helped me develop a plan for addressing my problems, my counselor had the skills and expertise to assist me with my concerns, the assistance I received made things better at home, and the assistance I received made things better at work. The lack of differences on these items indicated that online and face-to-face counseling had similar therapeutic alliance effects and improved client’s lives (as supported by improved GAF scores). Of the five significant differences, two dealt with issues at intake, and thus spoke to differences in the problems of the groups, and the other three dealt with counseling satisfaction. The authors removed three outliers from the data and found no significant differences on these three items. When the outliers remained, the authors argued that the significantly lower online group’s ratings were still acceptably high, indicating client satisfaction. The authors also added anecdotal evidence that there were more males in online therapy than face-to-face therapy and that men reported they prefer online counseling because of its anonymity. The authors also posited that the online group may have needed to be screened for technology familiarity and ability to interact online. The authors argued that these results added to a literature that indicates that online counseling is as effective as traditional face-to-face services.

Leibert, Archer, Munson, and York (2006) conducted a retrospective study on former and current clients of online therapy. They posted their study on 80 public Yahoo mental health groups and received 81 responses. Participants needed to have received
past or current online counseling. Internet use was significantly correlated with online counseling \((r = .35, p < .001)\). Income, education, and age were not significant predictors. The majority (71%) had multiple presenting problems. Participants cited convenience and privacy/anonymity as the two most popular reasons for using online counseling. The majority (79%) had also previously engaged in face-to-face counseling. Similar to the findings of Murphy et al. (2009), online clients were generally satisfied \((M = 67.8\) out of 100), but not as satisfied as their face-to-face comparisons \((M = 88.1)\). This difference was statistically significant \((t(51) = 5.82, p < .05)\).

Leibert and colleagues (2006) also showed the face-to-face group had a significantly higher working alliance composite score than did the online sample \((t(51) = 4.76, p < .05)\). Face-to-face clients also had significantly higher scores on all three subscales of the WAI (task \((t(51) = 4.48)\), goal \((t(51) = 4.65)\), and bond \((t(51) = 6.0)\)) than did the online sample. Working alliance did significantly predict online counseling satisfaction \((F(1,49) = 53.85, p < .0001)\), whereas age did not. These results indicated that working alliance was an importance aspect of online counseling satisfaction. The majority (80%) of the sample discussed advantages and disadvantages of the counseling modality (111 total responses). The advantages of online counseling included disinhibition, flexibility, cost, the writing medium, and not having to travel. These advantages are similar to Shultze’s (2006) findings. The disadvantages had to do with the therapeutic relationship strength. Overall, the researchers concluded that these clients were satisfied with their online counseling and had established a working alliance.

Cohen and Kerr (1998) conducted an experiment in which college students were assigned to a face-to-face or chat condition to treat self-reported anxiety. Students were
recruited from undergraduate classes \((N = 24)\) and stated they wanted help dealing with anxiety. Counselors were six male graduate students who demonstrated typing proficiency. Clients were randomly assigned to a face-to-face or chat condition to treat self-reported anxiety. Clients met with a graduate student counselor for one session and rated anxiety pre and post session as well as counselor and session variables. Counselors used a semi-structured interview format that addressed similar areas across all clients in both conditions. Clients completed the State-Trait Anxiety Inventory, the Counselor Rating Form, a Computer Usage Survey, and the Session Evaluation Questionnaire.

Results were analyzed with a repeated measures ANOVA (Cohen & Kerr, 1998). There was no significant interaction between Time and Mode of Delivery on anxiety \((F(1,22) = .19, ns)\). There was no main effect differences for modality \((F(1,22) = .04, ns)\), but a significant time effect revealed both conditions improved state anxiety on the State-Trait Anxiety Inventory \((F(1,22) = 40.57, p < .001)\). A MANOVA was conducted to examine counselor and session variables. Results found that there were no group differences in client perception of counselor Expertness \((F(1,22) = .10, ns)\), Attractiveness \((F(1,22) = .004, ns)\), or Trust \((F(1,22) = .59, ns)\) on the Counselor Rating Form. On session process measures, there were no differences in session Smoothness \((F(1,22) = .002, ns)\), Positivity \((F(1,22) = .003, ns)\), or Depth \((F(1,22) = .25, ns)\), but the face-to-face group was significantly higher on arousal \((F(1,22) = 6.69, p = .17)\) on the Session Evaluation Questionnaire.

These researchers noted that their sample was well versed in computers and used them more often than the general U.S. population (Cohen & Kerr, 1998). These results indicated that session process variables and therapist process variables were similar in
online counseling as they were in face-to-face sessions. The one difference was in arousal, where face-to-face clients reported more arousal than online clients. Further research should examine how individual difference variables impact people’s arousal in session, as this aspect of counseling may be uncomfortable for certain people and cause them to quit or never attend counseling. Furthermore, a one session intervention had similar beneficial effects for both groups; further support for online counseling’s efficacy. Results were limited in that only one session of counseling was used to assess anxiety benefits and it was unknown if the modalities would have had similar outcomes, process effects, and counselor impact after more sessions. Although these researchers did not directly assess the working alliance, their results indicated that session process and therapist effects variables are similar in online and face-to-face counseling.

King, Bambling, Reid, and Thomas (2006) compared session impact, working alliance, and outcomes for 100 youth receiving one telephone session and 86 youth receiving one online session as part of Australia’s Kids Help Line. This was a naturalistic study of actual users with no random assignment using the Session Impact Scale and Therapeutic Alliance Scale. A significant ANOVA interaction showed that telephone counseling had significantly better outcomes ($F(1, 85) = 33.6, p < .01$). An ANCOVA that controlled for age showed that telephone counseling also had significantly greater session impact ($F(1, 85) = 32.7, p < .01$). A MANCOVA revealed that telephone counseling produced significantly greater working alliance scores on three of four alliance facets: Resistance ($F(1, 85) = 12.61, p < .01$), collaboration ($F(1, 85) = 23.97, p < .01$), and total alliance ($F(1, 85) = 13.9, p < .01$). The mutual liking and acceptance facet of working alliance was not statistically different from online counseling ($F(1, 85) = \ldots$)
1.6, \( p = .2 \). Despite the statistical differences in favor of telephone counseling, the online services still produced positive outcomes, although not as substantial.

In a multiple regression, King and colleagues (2006) found that alliance scores did not predict outcome in the telephone conditions (statistics not reported), but session impact scores (\( \beta = .52, \, t(91) = 3.78, \, p < .01 \)) and pre-counseling distress scores (\( \beta = .25, \, t(91) = 2.76, \, p < .01 \)) did. In another multiple regression on the online counseling sample, pre-counseling distress (\( \beta = .46, \, t(85) = 5.48, \, p < .01 \)) and session impact (\( \beta = .42, \, t(85) = 2.72, \, p < .01 \)) again predicted outcome scores. Working alliance did not statistically predict outcome scores for the online group (statistics not reported). When session impact was removed from the regression due to its high correlation with alliance, none of the alliance scores still predicted outcome for the telephone group, but the resistance subscale of alliance significantly predicted outcome in the online group (\( \beta = .21, \, t(85) = 2.40, \, p < .05 \)). The online condition also had a trend for the collaboration facet of working alliance (\( \beta = .26, \, t(85) = 1.83, \, p = .07 \)). The authors argued that the results indicated more substantial positive outcomes were due to greater efficiency in telephone counseling, which allowed for more work to be done in the time allotted than did online counseling. However, many youth chose to use online counseling rather than the telephone condition, indicating a preference for such a counseling modality. These results are limited due to the fact that the authors only examined the impact of one session. It is, therefore, not surprising that working alliance did not contribute to either telephone or online counseling outcomes, given that working alliance is usually measured after three or more sessions (Eaton, Abeles, & Gutfreund, 1988) and may need time to develop.
Overall, online therapy relationships appeared to be both similar to and different from face-to-face therapy relationships. Working alliance appeared to contribute to client satisfaction and outcomes in both modalities, while online counseling relationships may be affected by client level of familiarity with computer-mediated communication and technology use. These similarities and differences were discussed by researchers as well as actual clients of online counseling. Research has shown that online counseling relationships were formed and contributed to positive outcome in this modality. These findings provided support for the argument that online counseling is an actual therapeutic modality and works. Next, studies that examined the experience of counselors engaging in online therapy are reviewed.

The Counselor Experience

Given the novel nature of providing mental health services on the internet, some research has sought to understand how counselors experience this medium. The majority of this literature involves qualitative studies exploring how counselors make sense of performing work in this new modality, which I will review in this section. Overall, counselors reported finding advantages and disadvantages to performing counseling through the internet. Counselors found the online modality to be a unique way to provide services, but it may not be appropriate for all counselors to take up online work due to its differences from face-to-face counseling.

Day and Schneider (2000) conducted a qualitative study examining the experiences of ten therapists providing Cognitive-Behavioral Therapy across three
different conditions as part of an experiment in telehealth modalities. The three conditions were face-to-face, videoconferencing from separate locations, and an audio only condition that simulated a telephone session. They did not include an online therapy condition. They discovered six themes about how counselors experienced these different conditions. These were: 1) mixed reactions to emotional connections in different conditions, 2) working blindfolded in the audio condition (lack of visual cues effects), 3) the invisible therapist in audio only (issues of not being seen as a therapist), 4) effectiveness of the different psychotherapy approaches to treatment, 5) client differences (matching client problem and characteristics to delivery mode), and 6) the natural adaptation of clients and therapists in adjusting to the technological condition. No one condition was superior to the others, but counselors discussed the pros and cons to each condition.

Overall, seven out of ten counselors preferred face-to-face counseling, but the three who did not performed the most work in audio, thus having more familiarity with that novel condition (Day & Schneider, 2000). These results indicated that different telehealth modalities for delivering therapy had unique benefits that can be applied in certain cases to better reach and treat clients. Face-to-face was not superior in every way to these other conditions, and some counselors even preferred other conditions. For some therapists, greater familiarity with the audio condition caused them to prefer this condition over time. Therapists discussed the advantages of an audio only condition that allowed clients to be more open due to anonymity and allowed therapists to not make preconceptions based on visual cues.
Haberstroh et al. (2008) examined the experience of counselor trainees who facilitated five analog sessions of online chat counseling. The researchers used a grounded theory qualitative design to capture the experience of two male and four female students facilitating online counseling. Multiple interviews were conducted with these counselor trainees over a five week period, along with focus groups and participant journals. Seven domains of experience emerged from the data. These were: 1) technological barriers, 2) counseling without non-verbal communication, 3) clinical concerns appropriate for the online modality, 4) theoretical approaches to online counseling, 5) time and content issues in online sessions, 6) clinical training processes and experiences specific to online modality, and 7) the ability to have mutual in-home counseling. The results indicated that counselor trainees need experience in computer use and alternative ways of contact if the computer breaks down.

Important findings for the experience of online counseling included dealing with the absence of visual cues, that anonymity increases early disclosure, the problems of covering less content in the same time, and time lags in communication due to technology (Haberstroh et al., 2008). Trainees also discussed the distractions that came from performing online counseling from home and potential boundary/ethical concerns that arose when family members were nearby during counseling sessions. Such concerns might be alleviated by having a specified work area in the home or conducting online counseling out of the home and in an office environment. These results helped illuminate some of the problems counselors have in performing online counseling and could assist future training in this modality.
Bambling, King, Reid, and Wegner (2008) examined the experience of counselors engaging in actual online counseling as part of an Australian service that provided online counseling to adolescents. This qualitative study involved 29 Australian therapists at the Kids Help Line service who provided online chat counseling to youth. The researchers used the Consensual Qualitative Research method in two semi-structured focus groups of counselors. Three domains emerged from the data: 1) privacy and emotionally safe environment, 2) communication through text, and 3) time. The theme of emotionally safe involved of the following issues: 1) clients express issues more readily, 2) clients are less intimidated by the counselor, 3) text is familiar to youth, 4) online clients are more likely to return, 5) the online modality promotes less confrontation for counselors, and 6) the online modality gives counselors time to think and respond.

The domain of text involved themes of: 1) anxiety about uncertainty of client state, 2) miscommunication risk in text, 3) loss of contact/disengagement in text, 4) use of text conventions to express emotions (e.g., emoticons, lol), 5) new strategies to manage the inefficiency of text, 6) addressing miscommunication ruptures directly to build alliance, and 7) use of icons and scales to convey emotional states and intensity in clients (Bambling, King, Reid, & Wegner, 2008). The domain of “time” involved the themes of: 1) clients multi-tasking and not being fully engaged, 2) less overall work completed in an hour, 3) use of "scrapbook" phrases to copy and paste to save time, 4) use of a timer to monitor session progress, and 5) simply extending sessions does not solve time problem. These domains and themes highlighted the unique ways therapy was conducted online and how counselors experienced and reacted to this therapy modality. The researchers suggested that new methods are needed to improve the process and outcome of online
counseling. Such suggestions included working with alliance rupture management strategies to address misunderstandings in text and pre-counseling questions to focus the session before it begins. These results showed that counselors working in this modality adapted to its limitations and took advantage of it strengths.

Research has examined counselor perceptions of using online counseling to address various issues (Lewis & Coursol, 2007). The researchers took a random sample of 400 counselor education professionals (200 males, 200 females). Of these, 127 returned the survey, and 121 responses were included in the final sample (65 men and 56 women). The survey asked what categories from the DSM were considered appropriate for the online counseling modality. The most acceptable issues included career issues (83%), economic issues (81%), educational issues (80%), and access to health services (79%). Out of 41 separate mental health concerns, only 12 of them were endorsed as appropriate for online counseling by more than 50% of the sample. In fact, the authors did not list problems which less than 50% of professionals approved, so the exact categories were unknown.

Lewis and Coursol (2007) also asked participants whether videoconferencing, chat, or email mode of online counseling was preferable for each concern. Counselors preferred videoconferencing to text chat or email for 33 of the 41 issues. Chat was preferred to email in 38 of the 41 categories. Email was only considered appropriate for six categories (housing, healthcare, economic, occupational, educational, and other issues). These results indicated that counselor educators approved of online counseling for a minority of mental health issues contained within the DSM. These counselors also preferred videoconferencing, a mode that more closely approximates face-to-face
counseling than the forms of email and chat. This pointed to the efficacy concerns that many mental health professionals may hold toward this new counseling modality. The authors did not assess the respondents’ prior use of these modalities, and it is possible that their lack of familiarity with the clinical use of internet counseling led to a bias against these forms of counseling. As Day and Schneider (2000) showed, therapists needed to become familiar with an audio condition to prefer it. It seems reasonable that clinicians will prefer technology such as videoconferencing that more closely resembles the face-to-face therapy they are used to than modalities such as telephone or internet that are further removed from this clinical familiarity.

Zelvin and Speyer (2003) presented a practice oriented article which overviewed clinical issues that arose with conducting online counseling. The authors discussed the skills counselors needed to be effective in conducting online therapy. These included being an expressive writer to model text-based expressions of feelings, being flexible in order to adapt to the ever-changing field in its current state, and having basic technological tools. It overviewed the intake, treatment planning, and termination processes of online therapy, and the authors also discussed special areas that are different from face-to-face therapy such as relationship distortion, glitches and flow in session communication, and contracting to educate the client about online therapy relationships and process.

Practicing mental health professionals have written about the benefits of online technologies in their treatment of clients. Yager (2001) described several situations in which email was used to supplement psychiatric treatment for clients suffering from Anorexia Nervosa. Email was used for 1) enhancing weekly sessions with check-ins and
monitoring, 2) treatment monitoring/ checking in, 3) consultative food intake monitoring, and 4) additional contact while bridging a client from providers. Yager posited some possible facilitative factors of email for patients as well. These included increasing frequency of contact, building awareness in clients, and allowing clients to write to their therapist when most inspired or in need. Yager believed that email and other technologies can be used as beneficial adjuncts to face-to-face treatment for Anorexia Nervosa and other mental health conditions.

Shernoff (2000) discussed how, as a private practice therapist, the internet was used to aid the gay community. Shernoff used the internet for marketing to gay clients, conducting online treatment with current clients, fielding initial questions from new clients, promoting flexibility with traveling clients, answering questions from an HIV website, providing info on a personal business website, and patient management software. Shernoff viewed the internet as an invaluable tool for work with reaching and treating the gay community, and believed it is “a lifeline for those isolated queer individuals who live in remote areas or who feel too stigmatized to seek out support or mental health treatment” (p. 106).

Overall, the preliminary research on the counselor experience showed ways in which counselors see online counseling as similar to and different from face-to-face counseling. Counselors conducting online sessions for the first time appeared to report a variety of positive and negative experiences from this work. Counselors working in the modality have offered perspectives on skills and techniques for conducting good online counseling beyond face-to-face skills. Counselors have also provided perspectives on how the use of online counseling as an adjunct to treatment or as a primary treatment
modality has improved their practice with clients. Clinicians experienced in face-to-face counseling may require time and familiarity with online counseling to understand its value and remove personal biases about its worth. These studies helped to uncover the experience of online counselors. Next, I will discuss the experience of online counseling from the client’s perspective.

**The Client Experience**

Another line of research has aimed to understand how online therapy clients understand and experience these sessions. This section will review the research on how online therapy clients experienced their sessions. Results of these studies pointed to some characteristics of online clients that may make them more suitable for this type of therapy as well as ways to improve interventions online. In general, online clients reported enjoying their sessions and derived benefits from them.

Haberstroh et al. (2007) investigated the experience of clients engaging in online counseling with an analog design. The project used five beginning counselor education students as clients with internship students as counselors. This qualitative research used a focus group, three separate individual interviews, and participant reflexive journals as different sources of data. Emerging themes from the data were: 1) Technology obstacles, 2) various reactions to the online relationship process; 3) experience of relating without visual or verbal feedback, 4) slower pace of sessions, 5) convenience, and 6) relating from a personal space (provided clinical opportunities but also could be distracting). Overall, some clients found online counseling to be useful while others did not. The
researchers argued that the variety of responses to this medium was due to client characteristics that need to be further investigated. The authors hypothesized that online counseling might be better for people who are comfortable with technology and online communication in general.

Griffiths and Cooper (2003) discussed the applicability of internet counseling for treating gambling addiction. The authors discussed three different types of online counseling websites and provide examples of each type. These three types of sites are: 1) Information, 2) peer-delivered therapeutic support/advice, and 3) professional treatment. They then discussed the pros and cons of the medium concerning the particular issue of treating problem gamblers. Again, these authors hypothesized about the particular characteristics that would make a person a better candidate for online therapy, but this awaits empirical examination.

DuBois (2004) reports on the characteristics of the clients who accessed her online counseling site over an eight month period. During this time, 217 people accessed the site and completed a basic demographic questionnaire, and some completed a lengthier life history form (statistics not reported). Of these potential clients, 15% were men, a majority were 20-50 years old, 16% were under 19 years of age, and 2% were 60 years or older. Fifty-two percent were married, 42% were single, and 11% were divorced. There were a variety of education levels from not graduating high school to having a Masters degree. This was a Canadian site, but 93% of potential clients were from the U.S. and a variety of others from other countries. Traffic to the site was highest from 4-5 p. m., with Tuesdays being the busiest day. The majority (89%) of site visitors were looking for free counseling. Presenting concerns involved: relationship issue with a partner (55%),
depression (13%), self-esteem (6%), anxiety (5%), parenting (4%), spiritual issues (3%),
identity (1%), self injury (1%), grief (.5%), and career (.5%). Other information of note
was that one person was disabled, one was deaf, two used public library computers, and
one was in a women’s shelter. This professional used students in supervision to
accommodate free counseling requests. The average email exchange was 15, and the
most was 42. Most clients preferred email to chat as mode of therapy delivery. Clients
said that convenience, daily contact, and cost were reasons for using online therapy. The
majority said it was helpful. These results showed that there are a variety of people
seeking out online counseling for a variety of issues. These people also had particular
reasons for wanting therapy via this delivery mode versus going to see a traditional
counselor.

King et al. (2006) examined the perceptions of youth who sought online
counseling through a national service in Australia. Five focus groups were conducted
with a total sample of 39 adolescents who were waiting online to receive services. Three
domains came out of the data which were: 1) privacy and emotionally safe environment,
2) communication through text, and 3) time. The domain Privacy involved clients feeling
safer with the online context, issues of improved privacy like not having to worry if
others in the house were listening on the phone, and one can control what is said before
sending. Benefits and challenges of text communication involved clients being
comfortable with the online environment and reporting negatives of telephone counselors
(noticed unempathic counselors), concerns of being misunderstood online or not seeing
emotions. The theme of time involved concerns of not enough time to do a session, long
wait times (up to three hours) to see a counselor online, and “early” closing time of nine
pm for online counseling was difficult for the needs of these youth. The researchers suggested that these results can help develop better services for youth in the future and see online counseling services as playing a greater role in the improvement of youth mental health.

Young (2005) examined the perspectives of clients toward online counseling. A survey was conducted of 48 clients of the Center for Online Addiction which treats internet addiction. Of this treatment group, 58% were men, mean age was in the 40s, and 93% were white. The majority (85%) said this was their first counseling experience, and 96% was their first attempt at online counseling. An additional 15% were currently seeing face-to-face counseling as well, 12% were on medications, and 6% were previously hospitalized for addiction. The vast majority of clients, 96%, liked the anonymity, 71% liked convenience, 52% liked the credentials of internet addiction specialists that were not in their areas, 38% indicated limited access to services in their area, and 27% liked the lower cost. On negative side, only 5% worried about lack of privacy associated with technology and someone finding out about their therapy, 38% were concerned about tech security, 31% concerned about being caught during a session, and 27% had no concerns. These results from a sample of current online counseling clients supported theories about the advantages and disadvantages of online counseling. While over a quarter of clients had no concerns, some were concerned about security and confidentiality issues. Such issues need to be addressed at the onset of counseling. The major advantage of this modality was its anonymity and convenience. These results also revealed how online counseling for a specific issue (internet addiction) allowed clients to access a specialist when there was not a professional with that competence in an area.
Roy and Gillett (2008) provided a case study of how email therapy was conducted with a 17 year old female who failed to engage in face-to-face therapy over several attempts. The client's written material was found to be expressive of her mood and self-harm difficulties and email counseling was offered. The authors discussed how email therapy was used to engage this client, create a therapeutic alliance, and was viewed as beneficial by both therapist and client. The authors particularly noted that email allowed the client to disclose new information, maintain counseling when traveling, and allowed the client time to process and respond to the therapist’s questions.

While the previous articles viewed the possibilities that the internet offers for counseling, others have considered negative issues. Finn and Banach (2000) examined the downside to online services for women. They looked at specific problems of online groups such as the negative effects of disinhibited communication, misinformation, loss of privacy, and issues of member identity/leadership. They also discussed the prevalence of cyberstalking and identity theft as these crimes relate to women. Legal recourse for victims of these online problems exist in state statutes on stalking and some states have specific cyber stalking laws as well as Title 42 of the Civil Rights act which prohibits sexual harassment at work. The authors also provided electronic sources for consumers dealing with stalking, online abuse, and safety issues. They argued that these issues are relevant for service providers to consider when offering online services to women. It is necessary for such mental health professional to prove they are legitimate entities, ensure privacy/security/confidentiality, educate consumers, and effectively deal with disrupters/harassers of women in online groups or forums. For instance, an online group can be “spammed” with pornography, or tirades (flaming) of women. Administrators
need to be aware of such sexist behavior and have procedures in place to deal with such occurrences.

Overall, these studies revealed that online clients benefited from services and sought online counseling instead of face-to-face counseling for specific reasons. Some clients were concerned about privacy and confidentiality issues, and these concerns should be addressed at intake through appropriate ethical standards and informed consent procedure. These descriptive studies provided anecdotal evidence that some people benefit from online services when face-to-face services fail, or would never seek traditional services in the first place. The next sections will focus on actual outcome studies of services offered on the internet, beginning with online support groups.

### Online Support Groups

One of the earliest forms that mental health counseling took on the internet was through the form of online support groups. Internet groups helped people struggling with mental health concerns, such as depression and anxiety, as well as more specific disorders. One of the benefits of the internet was its ability to connect people with rare issues who have no one else around them (Hopps, Pepin, & Boisvert, 2003). While most of these groups were created by ordinary people, mental health counselors, psychiatrists, and psychologists began creating and running groups with their professional slant as well (Grohol, 2005). Research has started to investigate the dynamics of such support groups and the mechanisms by which they help group members. This section will review the
qualitative literature discussing online support groups and then examine the results of empirical studies conducted on internet support groups.

Ethical issues for psychologists who mediate or participate in online support groups have been discussed in the literature (Humphreys, Winzelberg, & Klaw, 2000). These authors argued that support groups can be ethically conducted via bulletin board systems, chat rooms, discussion groups, and web pages. The context of a support group allows psychologists to moderate a greater discussion and thus not establish a direct, one-to-one relationship with a member as a professional would via chat or email therapy.

Humphreys and colleagues (2000) noted this is a new area for psychologists and that much ethical work in this area did not exist. Ethical work begins with understanding the technology. The authors argued that the role of the psychologist needs to be continually clarified in the online support group context, and this can be done with the use of “taglines” at the end of messages about the non-therapeutic nature of messages and never implying there is a personal therapy relationship with any individual member. The role of the psychologist may vary from one support group to another. A psychologist may be on one end of a continuum as a passive observer, simply hosting the group and not interact at all, or may be toward the other end and actively comment on group activity.

The authors also encouraged the use of dedicated email accounts and taking other steps to make sure that personal messages are not accidentally sent to the group. These authors argued that online support groups can be ethically conducted, but further attention should be paid to these emerging issues. Additionally, many online support groups were functioning without psychologists, and people were utilizing them to achieve goals.
One of the earliest examinations of online support groups was Winzelberg (1997). This author conducted the first content analysis of a public, online support group that dealt with eating disorders. Winzelberg took the stance of an unobtrusive observer and did not tell group members they were being examined in order to not impact the natural characteristics of the group. The author examined all the posts to this group over a three month period. Two raters read and categorized each message; finding an acceptable kappa of .87. A total of 70 participants posted 306 messages during this time period. Each new message had an average of 6.4 replies to it. Results found that 31% of postings involved self disclosure, 23% were a request for information, and 16% provided emotional support. A minority of users contributed 71% of all posts. The results found that this community used the same assistance strategies as traditional face-to-face groups, an early indication that online support groups may be viable options in mental health care.

In a more recent study, Bresnahan and Murray-Johnson (2002) examined 2,000 messages of an online discussion group targeted toward menopausal women. The authors theorized that such a group would be useful to women who often do not discuss menopause with their doctors or other people in their lives. The project sought to understand what factors led to women seeking help via this group, what types of messages were posted, what support was received, what types of messages were viewed as supportive, and potential advantages of this support group. The messages were gathered from a listserv from a women’s health discussion group comprised of several hundred people. The messages were collected over a two year period and coded by two coders for content and type of support, achieving kappas of .96 and .87 for the two domains. Eight content categories were discovered. These were: communication
problems with doctors, hormone replacement problems, alternative treatments, menopause symptoms, health problems, healthy living, family relationships, and spiritual coping. Most posts were supportive; 65% had combined types of support, and 80% contained some type of action facilitating support. Qualitative evidence was presented that showed users received support and felt that they were part of a community through this online group. The authors argued that these online groups could help empower women to gain control over their lives. More generally, these results showed that members of an online support group did indeed experience support.

Huws, Jones, and Ingledew (2001) examined how parents of autistic children used an email group to inform and support their raising children with autism. The authors noted that more people with disabilities were turning to the internet for support and information. The major category that emerged from the data was making sense of autism, and it broke down into four categories with further subcategories. The four categories were: Searching for Meaning, Adjusting to Changes, Providing Support and Encouragement, and Narrative Sharing of Experiences. The results revealed that such a group functioned as a mechanism of social support similar to face-to-face groups but may have additional functions such as helping parents make sense of autism.

Braithwaite, Waldron, and Finn (1999) also investigated how online groups function to support people with disabilities. They examined 1,472 messages sent over a one-month period in 1995 from 42 users on a computer bulletin board. Over 95% of messages had an element of social support within them. Results found five emerging categories: Information (31.3%), Tangible Assistance (2.7%), Esteem Support (18.6%), Network Support (7.1%), and Emotional Support (40%). The amount of messages in
these categories was significantly different ($\chi^2(4, N = 1,472) = 732, p < .001$), with information and emotional support occurring more frequently than chance and the other three categories less frequently than chance. These investigators also found unique aspects of online group support such as humor, nonverbal cues (emoticons/symbols), poetry, and signature lines not normally experienced in face-to-face groups. The authors argued that these results indicated that social support systems can be generalized to the online environment.

Mental health professionals can run online support groups as well. Hsuing (2000) described the inner workings of the Psycho-Babble online self-help group. This group was an open support group that was hosted by a mental health professional. Disclaimers discussed the group’s purpose and what it can be used for when new members resist. The site was not advertised and was free to join. Hsuing discussed the psychologist’s main role of setting and enforcing boundaries in such a group. For example, Hsuing discussed having to monitor “flaming behavior,” or posts that do not meet the membership requirement of being “civil” toward other members. Such posts were flagged, posters warned, and continual noncompliance resulted in banning that IP address from group involvement. The author showed how, in an eight month period in 2000, 1,516 group members posted 21,230 messages in 3,028 discussion threads. These numbers indicated a thriving community that existed within this online group. The article discussed how the group engaged in processes of education, support, and feedback among members. Hsuing claimed the anecdotal quotes from users showed evidence for the effectiveness of the setting. The article also discussed the unique online (e.g., anonymity, lack of non-verbals), self-help (e.g. advice, empathy, community), and
clinician (e.g. training in therapeutic group interaction, special role of therapist/administrator qualities) ingredients that produced this therapeutic environment. Overall, this study revealed that mental health professionals could help create a vibrant, supportive online community.

Online support groups are conceptualized differently from online group therapy. Sander (1996) conducted a preliminary study of the possibility of conducting group therapy online. The author’s research described the circumstances that led this therapist to conduct two sessions of couple’s group therapy in an online chat room. This was a case study of what it might be like to conduct couple’s group counseling in this context. Only having two couples for two sessions limited the generalizeability of these results. The author discussed issues around figuring out which partner is talking when both are under the same screen name, lags in discussion due to the process of computer mediated communication, and the slower pace of communication. Although this was a preliminary investigation of the appropriateness of the internet for such counseling, Sander argued for the future possibilities of this medium.

The previous studies reviewed in this section have been primarily descriptive in nature in trying to understand how online support groups functioned and how they benefited members. Research has also empirically investigated how online support groups improved the lives of the participants was compared to no treatment. For example, Chang, Yeh, and Krumboltz (2001) created an online support group targeting issues central in the lives of Asian American college males. The project sought to understand how users would utilize such a group, if members would feel comfortable and supported in such a group, and how the online group would demonstrate ingredients such as self-
disclosure and responding that are typical in traditional therapy groups. The authors posited that online group members would show outcomes of higher ethnic identity and self-esteem than a control group.

To run this group, an email solicitation was sent out to university students targeting Asian American males (Chang, Yeh, & Krumboltz, 2001). Over 150 students expressed interest, but the study enrolled the first 32. These 32 Asian American male students were then randomly assigned to the four week online support group ($n = 16$) or control ($n = 16$) condition. A student trainee moderated the group and posted a discussion topic each week, providing feedback and input as well to member responses. During the four week time, the online group averaged 10.6 messages a day, and individual participants averaged 4.3 messages weekly and 17.4 messages total during the group, an indication that participants were active. The authors showed that the majority of support group messages (58%) were sent during times when the counseling center would normally be closed. Self ratings showed participants felt comfortable ($M = 7.0$), supported by others ($M = 7.1$), and believed topics were relevant ($M = 7.8$), max score was ten. Additionally, participants thought this medium worked well (94%), thought that the online anonymity fostered sharing (93%), would recommend it to others (94%), and liked the moderator's work (81%).

A MANOVA was used to analyze group process measures over time, finding significant main effect of week ($F(45, 758) = 2.53, p < .001$; Chang, Yeh, & Krumboltz, 2001). Follow-up ANOVAs showed significant differences among weeks on experiential self-disclosure ($F(3, 269) = 11.5, p < .001$), informational self-disclosure ($F(3, 269) = 5.6, p < .01$), sharing ($F(3, 269) = 3.8, p < .05$), and acknowledgment ($F(3, 269) = 3.3, p$
Due to the liberal nature of these statistics, additional Dunnett C statistics were analyzed, which found continued significance for experiential and informational self-disclosure, but not for sharing or acknowledgement. Statistical comparison using ANCOVA to control for pre-test scores found no differences between online and control groups on ethnic identity ($F(1, 29) = 4.16, p = .051$) or self-esteem ($F(1, 29) = .05, p = .82$) after the group ended, not supporting the hypothesis of gains in these areas for participants.

Overall, these results supported the hypothesis that online group process is similar to face-to-face group process. These participants rated the online group favorably which is notable considering the literature detailing problems with group work with Asian American men. The hypotheses of the support group leading to outcomes of higher ratings of ethnic identity and collective self-esteem were not supported, which suggested that such a group either is unable to influence these outcomes or needed different ingredients in the group to affect such changes in participants. Thus, online groups should be explored as an alternative to traditional groups, especially for groups such as Asian American males that have not normally embraced groups.

Houston, Cooper, and Ford (2002) explored how an Internet support group for depression could assist users. The authors recruited 103 users from five active depression support groups to examine their depression over time. These participants were active users of the groups, with 53.4% of users having five or more hours of support group use in the previous two weeks. The vast majority (95.1%) of users agreed that chatting in these groups helped their depression symptoms. These groups were also used for education purposes, with 77.7% of participants using the forum to get information on
medications. Preference for counseling modality was examined, with 37.9% preferring an online group to face-to-face counseling, 50.5% preferring face-to-face, and 11.7% stating no preference. Users were active over time, with 61 users (72.6%) still active in a group at follow-up six or twelve months later. The majority (81%) of participants at follow-up reported still having face-to-face treatment while being involved in the group. The majority of baseline participants (71.8%) indicated that their face-to-face providers knew they were involved in the group.

Group participation had an impact on help-seeking behavior, with 62.3% of users saying that use of the group led them to ask their health care provider a question and 26.2% said the group influenced them to change medications (Houston, Cooper, & Ford, 2002). To compare these support group users to non-support group users the authors used the data from the Quality Improvement for Depression study. Using t tests, results found no differences in social support over time or between frequent or less frequent group users (t(72) = 1.4, p = .15). When controlling for the effects of age, gender, marital status, and depression severity change in a multivariate linear regression, this non-significant difference remained.

Overall, depression resolved in 33.8% of group users with depression at baseline at twelve months (Houston, Cooper, & Ford, 2002). For participants with depression on the CES-D at baseline, significant difference for frequency of use emerged (χ²(1, N = 102) = 3.78, p < .05), with 42.9% of frequent users and 20.7% of less frequent users resolving depression. This effect remained when age, gender, and baseline depression score were controlled for in a multivariate linear regression (χ²(1, N = 102) = 6.5, p < .03). This frequency effect though became non-significant depending on whether a more liberal
(less than 27) or conservative (less than 16) cut off score on the CES-D was used (statistics not reported). There was no significant interaction between current use of face-to-face counseling and frequency of support group use on depression score (statistics not reported).

These results indicated that participation in an online group could help improve symptoms of depression over time since more frequent participation was significantly related to greater symptom improvement. In addition, participation in the support group helped a majority of members ask their face-to-face providers a question and helped nearly a quarter of participants change medications. Furthermore, the hypothesis about more support group participation leading to less social support was not supported, indicating that activity in an online support group is not related to social isolation. These results came out of one of the few prospective research studies on this issue.

In sum, researchers have attempted to understand how support groups operate online. Researchers examined the content and process of existing groups, moderated groups, and groups specifically created for research purposes. Results from both qualitative and quantitative studies showed that members of online groups felt supported and were engaged in group processes. Less research existed to show that such groups provide improved outcomes for members. The anecdotal evidence points to members deriving benefits from these forums but randomized experiments are lacking to confirm these suppositions. Much more evidence exists to show the effectiveness of individual treatments through the internet, but evidence for group work is far behind (Barak et al, 2008). These studies did show how groups could bring together people with similar needs (parents of autism), target those that cannot otherwise get social support (people with
disabilities), and outreach to groups (Asian American males) that underutilize traditional group therapy approaches. The next section will review the findings from research on individual treatment through the internet.

**Outcome Studies**

Another important aspect to support the legitimacy of online therapy is outcome studies. The past decade had seen a drastic rise in the amount of research that examined if online interventions for specific mental health diagnoses produced outcomes. These interventions were stand alone self-help programs (Christensen et al., 2006), email (Vincent & Lewycky, 2009), or instant message chat with therapists (Kessler et al., 2009). Online interventions were studied for depression (Kessler et al., 2009), anxiety (Kiropoulos et al., 2008), PTSD (Lange et al., 2003), and other disorders (Vincent & Lewycky, 2009). These studies showed significant improvement in clients randomly assigned to online treatment versus wait list control (Barak, Hen, Boniel-Nissim, & Shapira, 2008). A few studies showed that these outcomes were maintained in real world settings (Bergstrom et al., 2008; Kessler et al., 2009) and were comparable to face-to-face treatment as well (Kiropoulos et al., 2008; Barak, Hen, Boniel-Nissim, & Shapira, 2008). A few meta-analyses have also been published, confirming the overall significant effects of online interventions (Barak, Hen, Boniel-Nissim, & Shapira, 2008). The findings for randomized controlled trials (RTCs) of online interventions for various mental health disorders will first be reviewed, and then the findings of meta-analyses will be discussed.
An abundance of outcome studies target depression. For example, Kessler et al. (2009) recruited 297 patients who met criteria for a diagnosis of depression with onset in the previous four weeks from 55 primary care physicians in Britain. Beck Depression Inventory (BDI) scores were used as the outcome criteria. The patients were randomly put into either an online chat Cognitive Behavioral Therapy (CBT) plus usual care group or an eight-month wait list for online CBT plus usual care group. The random assignment to therapy condition was stratified with consideration for current antidepressant use, sex, severity of depression, and if the primary care practice had a counselor. The groups were found to be similar across a number of variables including severity of depression, SF-12 and EQ-5D scores, and presence of a secondary diagnosis. The intervention involved up to ten sessions of real time chat (using CBT) with a therapist. The intervention was expected to be completed within 16 weeks of assignment to therapy and at least five sessions being completed within this time. The 18 therapists were members of an online therapy practice with experience in this modality of counseling.

BDI scores were examined at baseline and then at four months and eight months after intervention (Kessler et al., 2009). Seventy-one percent of participants provided a BDI score at four months and the same percent provided a score at eight months. Using an intention-to-treat analysis, intervention participants were statistically more likely to have a non-clinical BDI score at both four month \((OR = 2.39, p = .01)\) and eight month \((OR = 2.07, p = .02)\) follow-ups than the control group. These results remained when the effects of housing, employment, life events, and other covariates were controlled for (statistics not reported).
A second intention-to-treat analysis revealed that BDI scores were significantly lower for the intervention group as well at four months ($OR = -7.1, p < .0001$) and eight months ($OR = -6.2, p = .0002$; Kessler et al., 2009). These results again held when controlling for other confounding factors (statistics not shown). The intervention group had an average improvement of seven BDI points, an effect size of .81, after four months. At the eight month follow-up, the effect size was still .70. Beyond these intention-to-treat analyses, compiler-average causal effect analyses were run which supported the intention-to-treat findings.

These results supported the notion that the effectiveness of online chat therapy for depression is maintained when applied to clients with depression seeking help in real-world settings. These clients were referred to treatment for depression from their primary care providers. The online chat CBT treatment produced significant outcomes in improving their depression when compared to a wait list control.

Also examining depression, Christensen, Griffiths, and Jorm (2004) randomly placed 525 people into one of three groups: internet psychoeducation (BluePages website), internet CBT (MoodGYM website), or placebo (weekly contact with an interviewer to discuss lifestyle factors). ANOVAs with planned contrasts examined the difference in scores from pre to post intervention. Both Internet sites were significantly more effective than placebo at reducing depression scores. Participants’ scores significantly improved on a measure of depression (CES-D) for the internet CBT group ($M = 3.2, p < .05$) as well as the psychoeducation website ($M = 2.9, p < .05$). Participants in both sites significantly increased in knowledge of treatments over the control group (MoodGym $M = -2.1, p < .05$; BluePages $M = -1.2, p < .05$), while CBT improved
dysfunctional thinking over the control group \((M = -6.1, p < .05)\). Participants in the BluePages \((M = -.7, p < .05)\) and MoodGym \((M = - .4, p < .05)\) groups also showed improved depression literacy over participants in the control group. The results indicated that online CBT and psychoeducation could improve depressive symptoms by targeting its own area (dysfunctional thoughts or education).

Christensen, Griffiths, MacKinnon, and Brittiffe (2006) further expanded the research on online CBT for depression with a large scale RCT of the MoodGym website. In a 19 week period, 15,412 people visited the site and registered for the study. The researchers were interested in exploring the effective parts of the website and broke the components of the site into six different variations for randomization. Users then decided if they wanted to choose one of the components \((N = 6,423)\) or be randomized into one \((N = 2,794)\). Users who did not want to be randomized or were physician referred were excluded from the study. The Goldberg Depression Scale was used as the primary outcome measure. Participants had depression scores over one standard deviation above community norms. The treatment was an online CBT condition that was done by the participant alone (i.e., without a therapist). A significant interaction of time and treatment condition was found \((F(13,31) = 2.20, p = .01)\). This interaction indicated that the program improved depression scores, but only for certain combinations of the program.

Follow up analyses revealed that two versions of the site were found to be more effective in reducing depression than the other four (actual statistics not reported; Christensen, et al., 2006)). These two versions both involved an extended version of CBT. The effect size for these conditions were .40 and .34 respectively, while the effects sizes for two other conditions were .20 and .22. The authors noted that in stand-alone
conditions such as this, attrition rates for participants are high, around 70%. Thus, while this study attracted many interested parties, the majority of them dropped out before completion. The authors argued for increased tracking and monitoring of participants to improve retention rates.

Christensen, Griffiths, Groves, and Korten. (2006) updated the MoodGym website and made it publicly available as the Mark II endeavor. This site was freely available to the public. The researchers were particularly interested in what aspects of such a site would increase treatment compliance and improve outcomes for depression and anxiety. In one year of operation, 38,791 people registered on the Mark II version of the site. Using linear regression, results showed that a lower initial depression score, more modules completed, and female gender led to significantly lower depression scores (actual statistics not reported). The Mark II site required users to complete the assessments and had significantly higher levels of compliance of completing more depression ($t(57, 770) = -11.68, p < .001$) and anxiety ($t(57, 759) = -49.47, p < .001$) tests than did participants on the earlier site. Less than 7% of the Mark II participants went beyond the first two modules of the program. Even though this is a small percentage, it resulted in a large number of people ($n = 2,715$) receiving help via this website. Future research should address the problem of treatment adherence to these internet interventions. Also of interest, the Mark II version of the site had 5% more male participants than did the earlier controlled site.

Beyond interventions for depression, online therapy has been studied for panic Disorder. Klein and Richards (2001) examined how brief CBT provided through a website could improve Panic Disorder. The authors sought to develop a CBT self-help
Internet program for this disorder based on advances in using computer technology to treat psychiatric conditions at low cost. Their program was a self-directed intervention with no therapist contact that involved psychoeducation, panic management techniques, thinking errors, and reframing such errors.

Twenty-three participants with PD were selected from an Australian sample (Klein & Richards, 2001). These participants had to have a primary PD diagnosis, no physical health problems, and experienced panic attacks with certain characteristics within the previous year. Participants were interviewed to assess eligibility with the Prime MD and completed measures of panic symptoms. Participants were randomly put into treatment \((n = 11)\) or self monitoring only \((n = 12)\) conditions. The treatment condition was three weeks long consisting of the 1\(^{st}\) week of self monitoring, the 2\(^{nd}\) week of completing the program placed online, and week three was follow-up data.

Results from Klein and Richards (2001) showed a significant condition by time interactions for panic frequency \((F(1,19) = 12.63, p < .01)\), anticipatory fear of panic \((F(1,19) = 12.26, p < .01)\), and general anxiety \((F(1,19) = 8.92, p < .01)\). Follow-up analyses revealed that the treatment group showed significantly lower panic frequency \((t(8) = -2.53, p < .05)\), anticipatory fear of panic \((t(8) = -3.30, p < .05)\), and general anxiety \((t(8) = -2.68, p < .05)\). There was a non-significant condition by time interaction for depression \((F(1,19) = 3.71, p = .07)\).

For self-efficacy of managing panic attacks, there were significant condition \((F(1,19) = 13.52, p < .01)\), time \((F(1,19) = 9.08, p < .01)\), and condition by time interaction effects \((F(1,19) = 6.52, p < .05;\) Klein & Richards, 2001). Follow-up analyses revealed that the treatment group showed significantly improved self-efficacy \((t(8) = -\)
2.92, \( p < .05 \)). For body vigilance, there were significant condition (\( F(1,19) = 4.94, p < .05 \)), time (\( F(1,19) = 6.61, p < .01 \), and condition by time interaction effects (\( F(1,19) = 7.91, p < .05 \)). Follow-up analyses revealed that the treatment group showed significantly lower body vigilance (\( t(8) = 4.27, p < .01 \)). A significant time effect showed that both group decreased anxiety sensitivity (\( F(1,19) = 7.46, p < .01 \)). The authors used these results to conclude that such an intervention conducted through the Internet may be a useful way to treat panic disorder due to the significant improvement for the treatment group on a variety of panic attack outcomes.

Studies have also examined whether CBT delivered online was comparable to face-to-face CBT for Panic Disorder (Kiropoulos et al., 2008). Although online CBT for panic has been shown to be effective, this test would establish its comparable credibility to the “gold standard” of traditional treatment. Participants were recruited through various methods in Australia and had to meet strict inclusion criteria including a structured clinical interview to establish the Panic Disorder diagnosis. Of 799 registrations, 86 met the inclusion criteria for the study.

Random assignment was made into two conditions: online condition (\( n = 46 \)) and face-to-face (\( n = 40 \)) (Kiropoulos et al., 2008). The online condition involved the Panic Online program that involves self-administered CBT on the internet with therapist support through email. The program involves six modules and involves typical panic treatment components such as instructions for controlled breathing, cognitive restructuring, and interoceptive and situational exposure. The face-to-face group involved a twelve week manualized CBT treatment. Seven people dropped out from the study and
a Fischer’s exact test revealed there was no difference in attrition between the conditions \( \chi^2(1, N = 86) = .44, p > .05 \).

Intention-to-treat procedures were used when analyzing the data to deal with missing data (Kiropoulos et al., 2008). Results using MANOVAs showed a significant time effect \( F(3,74) = 43.05, p < .05 \) while the group and interaction effects were non-significant. Repeated measures MANOVAs showed a main effect for time for panic cognition \( F(3,65) = 18.60, p < .05 \), depression/anxiety/stress \( F(3,75) = 16.58, p < .05 \), and quality of life variables \( F(4,66) = 12.70, p < .05 \) while the group and interaction effects were all non-significant. Panic attack frequency did not differ between groups \( (Mann-Whitney U (1) = 761.50, ns) \). Both face-to-face \( (p = .000, Wilcoxon sign rank test) \) and online \( (p = .007 Wilcoxon sign rank test) \) showed significant improvement in panic attack frequency over time. Follow-up ANOVAs revealed improvements over time for both conditions on clinician rating of panic \( F(1,76) = 122.95, p < .001 \), self ratings of panic \( F(1,76) = 86.77, p < .001 \), depression \( F(1,77) = 36.10, p < .001 \), stress \( F(1,77) = 21.05, p < .001 \), and anxiety \( F(1,77) = 43.50, p < .001 \).

Furthermore, results showed there were no differences in treatment alliance \( t (47) = 1.02, p > .05; \) Kiropoulos et al., 2008). Participants saw both conditions as equally credible \( t (66) = -.99, p > .05 \). A MANOVA found no differences between the groups on treatment satisfaction \( F (4, 41) = .61, p > .05 \). Face-to-face did have significantly more enjoyment in communicating with the therapist \( t (57) = 4.29, p < .05 \) which was not surprising since this condition had several hundred more minutes of actual treatment time interaction with the therapist). Face-to-face therapists rated compliance \( t(56) = -4.45, p = .000 \) and understanding of material \( t(56) = -4.45, p = .000 \) significantly higher.
than the online condition. These results show that treatment through the Panic Online program achieves comparable results to traditional face-to-face treatment while saving hours of clinician time. Attrition rates, alliance ratings, and outcomes were similar between the conditions in this highly controlled study.

Research has examined the impact of varying the level of therapist contact on clients’ outcomes in the Panic Online treatment (Klein et al., 2009b). A final sample included 57 participants from Australia. Participants were randomized to either frequent ($n = 28$) or infrequent ($n = 29$) therapist contact every week. The PO program involved an eight week psychoeducation and CBT intervention delivered on the internet. Both conditions could email the therapist as much as they wanted but the frequent group would receive up to three responses back while the infrequent group would receive only one. Therapists recorded the amount of time they spent responding to participants.

Intention-to-treat analyses were used for data analysis (Klein et al., 2009b). Fourteen participants dropped out of the treatment and there were no differences in attrition between the groups ($Fisher’s exact test \chi^2(1, N = 57) = .76, ns$). Results of a repeated-measures MANOVA showed that treatment groups significantly improved over time ($F(4,45) = 14.80, p = .00$), but there was no Group effect ($F(4,45) = .50, p = .74$), nor a Group by Time interaction ($F(4,45) = .25, p = .91$). Follow-up ANOVAS showed significant improvement on four different parameters of panic for both groups post-intervention.

Three other repeated-measures MANOVAs revealed significant time effects for panic cognition, negative affect, and quality of life variables while also showing non-significant group and group by time interactions for all three variables (Klein et al.,
For cognitions, follow-up ANOVAs showed significant improvement for both groups on four different measures of the variable. For negative affect, follow-up ANOVAs showed significant improvement for both groups on three different measures of the variable. For quality of life, follow-up ANOVAs showed significant improvement for both groups on the Physical and Psychological measures but non-significant results on Social or Environment measures. The groups did not differ on the amount of participants who became panic free after treatment (Fisher’s exact test \( \chi^2(1, N = 56) = .31, p = .78 \))

In addition, concerning the effect of level of therapist contact the two groups did not differ on client rating of alliance (\( t(28) = -.09, p = .93 \); Klein et al., 2009b). The groups also did not differ on treatment credibility (\( t(46) = -.37, p = .71 \)), while a MANOVA revealed no group differences on treatment satisfaction (\( F(4, 24) = .72, p = .59 \)). Participants in the frequent group received more therapist time than the other group (\( t(46) = 2.02, p = .49 \)), and received more emails (\( t(47) = 7.27, p = .00 \)) and sent more emails (\( t(46) = 2.12, p = .04 \)).

These results indicate that internet based treatments may not require more therapist contact to be effective. For this program at least, level of therapist contact did not change the positive outcome made in both groups. It appeared that a minimal level of therapist contact in internet intervention programs may be all that is needed to assist users in making positive outcomes.

In addition to the controlled experiments of online panic treatment, an effectiveness study of an Internet self-help program for Panic Disorder for actual clients in a psychiatric setting has shown that these treatments work in real world situations (Bergstrom et al., 2008). Patients who were seeking help at the Anxiety Disorders
Program in Sweden were assessed for one to three sessions to determine eligibility for the study. The first twenty patients that met criteria were enrolled in the treatment. Clients were assessed with the MINI structured clinical interview and blood tests to rule out physiological causes. Participants had to meet DSM criteria for Panic Disorder as the primary diagnosis and if on medications be on a stable dose for two or more months.

Patients accessed the CBT self-help program on the Internet which consisted of ten modules completed over ten weeks (Bergstrom et al., 2008). Clinicians completed the Panic Disorder Severity Scale (PDSS) and the Global Assessment of Functioning (GAF) on patients to assess outcomes. Patients completed the Mobility Inventory for Agoraphobia (MI), Beck Anxiety Inventory (BAI), Beck Depression Inventory (BDI), Montgomery-Asberg Depression Rating Scale-Self-rated (MADRS), and the Hospital Anxiety and Depression Scales (HADS). Measures were completed pre and post intervention as well as at six month follow-up, while the HADS was completed with each module of the program. Patients emailed answers after each module to a therapist who then responded with feedback and instructions for the next module. The sample included nine men and eleven women, averaging 34 years of age. Post-treatment measures involved 18 patients and follow-up included 17 patients.

Results from Bergstrom et al. (2008) revealed that scores on the PDSS and MIA repeated-measure ANOVA revealed that the intervention produced significantly lower panic scores over time \( (F(2, 38) = 22.2, \ p < .0001) \). Post-hoc Bonferroni corrected \( t \)-tests revealed that this effect occurred from pre to post-test \( (p < .0001) \) and pre-test to follow-up \( (p < .0001) \). The change between post-test and follow-up was non-significant. The majority of patients had a drop of at least 40% on the PDSS from baseline to post-test and
70% had the reduction at follow-up. These results extend the previous random controlled trial findings for the effectiveness of Internet treatment for Panic Disorder into actual clinical practice.

Repeated-measures ANOVAs were conducted separately on secondary outcome measures (Bergstrom et al., 2008). Time effects were significant for GAF ($F(2, 38) = 28.2, p < .0001$), BAI ($F(2, 38) = 15.0, p < .0001$), HADS-anxiety, ($F(2, 38) = 26.7, p < .0001$), HADS-depression ($F(2, 38) = 14.01, p < .0001$), MADRS ($F(2, 38) = 10.3, p < .0001$), and BDI ($F(2, 38) = 11.4, p < .0001$). The HADS was completed after each module and a significant effect of time was found for its anxiety component ($F(8, 152) = 6.9, p < .0001$), but not its depression component ($F(8, 152) = 1.4, p = 0.21$). During the ten week intervention window, patients completed an average of 2.8 ($SD = 2.4$) modules. Therapists spent an average of 11.4 minutes on each patient per week.

These results supported the effectiveness of Internet CBT interventions for the treatment of Panic Disorder in real world settings. Improvement of symptoms was found on both self-rating and clinician-rating measures, bolstering the validity of the results. The limited amount of time each therapist had to spend on each patient per week indicated that such an intervention could be cost-effective as well if applied more broadly to PD treatment.

Beyond treating panic, online treatments have also sought to treat Post Traumatic Stress Disorder (PTSD). Lange et al. (2003) conducted the first randomized controlled trial of internet therapy for PTSD. The project opened an internet website for the study in the Netherlands and had over 1,000 people sign up for treatment. The treatment consisted of the authors’ “Interapy” program (www.interapy.nl) that involved five weeks of twice a
week writing sessions about a traumatic event, which were submitted to therapists for feedback and further instructions on how to proceed. Writing assignments involved three phases: self-confrontation, cognitive reappraisal, and sharing and farewell ritual.

Screened participants were randomly assigned to either the treatment condition \((n = 69)\) or a wait list control \((n = 32)\). Forty-four of the original 122 treatment clients dropped out for a variety of reasons. Results of a MANOVA showed that treatment clients had significantly lower intrusions and avoidance symptoms of PTSD than did controls \((F(2,95) = 12.49, p < .0001)\). Results of another MANOVA also showed the treatment group had significantly lower depression, anxiety, somatization, and sleep problems than controls \((F(4,96) = 9.19, p < .0001)\). Using a follow-up survey, with the most positive score being five, clients showed positive feelings for these writing exercises \((M = 4.36, SD = .91)\), confidence in their online therapists \((M = 4.09, SD = .78)\), and an overall positive experience of the program \((M = 3.73, SD = 1.28)\).

Another randomized controlled trial of the Interapy program for PTSD showed positive effects (Knaevelsrud & Maercker, 2007). This RCT involved 49 program treatment clients and 47 wait list clients. A repeated measures MANOVA revealed that the treatment group showed significantly greater improvement over the control group on a variety of measures of PTSD such as intrusions \((F(1,93) = 21.52, p < .001)\), avoidance \((F(1,93) = 10.00, p < .005)\), hyperarousal \((F(1,93) = 25.49, p < .001)\) and overall mental health \((F(1,93) = 5.95, p < .05)\). The researchers also examined client working alliance with the WAI, finding that alliance rating improved over time \((F(1,40) = 25.45, p < .001)\). A multiple regression analysis was performed to examine what effect the working
alliance had on the outcome variables. Results showed that alliance contributed to 15% of the post-treatment scores ($R^2 = .15; F(2,39) = 8.15, p < .05$).

The effectiveness of Internet treatments for PTSD was further supported by the findings of Klein et al. (2009a). In this study, clients with PTSD were treated online through email only through a ten week CBT and exposure program the researchers called PTSD Online. Sixteen clients with PTSD enrolled in the program and twelve completed it. Results from pre- to posttest revealed that clients improved on their PTSD self rating ($t(14) = 3.66, p < .01$) and clinician rating ($t(15) = 3.29, p < .01$). Overall, these studies on online interventions for PTSD indicated that this modality produced significant outcomes when treating the condition.

A randomized controlled trial of an online intervention has also targeted insomnia, showing significant treatment effects (Vincent & Lewycky, 2009). Participants who met insomnia criteria ($N = 118$) were equally assigned to either treatment or a wait list control group. The intervention involved five weekly modules based on a pre-existing six week face-to-face group covering cognitive therapy, sleep restriction, and relaxation training. Participants varied in the amount of tasks they completed, from sleep hygiene (76.8%) to hypnotic tapering (22.6%). The online group showed significant improvements over the control group on primary measures of sleep quality ($F(2,58.5) = 7.12, p = .002$), insomnia severity ($F(2,66.6) = 10.19, p = .0001$), and fatigue ($F(2,64)=3.78, p = .03$), as well as process variables of sleep beliefs ($F(2,65) = 6.03, p = .004$) and pre-sleep arousal ($F(2,67) = 7.08, p = .002$). The authors also noted that intervention participants had higher self-reports of perceived improvement over the control group and that 27.5% of them had
sleep in the normal range after the intervention. The authors argued that these results supported online self-help CBT for insomnia.

Research also supported the effectiveness of online CBT group therapy to treat loneliness for people with physical disabilities (Hopps, Pepin, & Boisvert, 2003). Nineteen people were recruited from mailing lists and placed into five groups of two to three people each, randomized between experimental ($n = 10$) and control groups ($n = 9$). The intervention was CBT therapy through online chat using a social skills manual. Sessions involved twelve two-hour meetings. A MANOVA revealed that the online group had significantly improved loneliness scores over the control group ($F(5,14) = 5.47$, $p < .01$). Additional MANOVAs revealed that the online treatment group showed significantly improved loneliness outcomes at post-test ($F(6,13) = 24.75$, $p < .001$) and four month follow-up ($F(6,13) = 12.37$, $p < .001$). These results gave preliminary evidence that people with physical disabilities could improve their loneliness with online group counseling.

In addition to treating mood disorders, the internet has been used to treat substance use. Hester et al. (2009) examined how internet based moderate drinking strategies would assist heavy drinkers in reducing their alcohol use. Participants were recruited from newspaper advertisements and screened to meet exclusion criteria. Participants were randomly assigned to either an online resource group ($n = 44$) or a resource plus internet program ($n = 40$). Measures of drinking and alcohol problems were measured at baseline and three-month posttest. A multivariate test revealed that both groups significantly reduced their amount of alcohol consumed ($F(3,63) = 15.84$, $p < .001$) and alcohol related problems ($F(1,65) = 19.37$, $p < .001$) from baseline to posttest.
The additive group showed significantly greater reduction in alcohol use than the resource only group ($F(3,63) = 3.22, p = .03$). There was no significant difference in groups on alcohol-related problems, although there was a trend toward greater improvement for the additive group ($F(1,65) = 3.48, p = .067$). A three-way interaction showed that the additive group’s effect was greater for non-binge drinkers than binge drinkers ($F(3,63) = 2.64, p = .042$). Both groups also showed significant improvement in the amount of drinks consumed by significant others, with the additive group having better results ($F(1,54) = 13.21, p = .001$). The authors argued that this is the first evidence that a web application can benefit alcohol use and related problems.

Research has also looked at using the internet to reduce tobacco use (Saul et al., 2007). This study examined how a statewide effort to assist tobacco users to quit smoking was assisted with an internet intervention. The website intervention was established through a Minnesota non-profit organization and involved social support, forums, and online counselors. The study involved 607 users of the site who consented to the research. At six month follow-up, 13.2% of these users had been smoke free for the past week. Results of a logistic regression showed that people who logged into the website four or more times after registering were significantly more likely to quit tobacco use ($OR = 2.90$). The authors concluded that these results were consistent with other smoking cessation programs currently in use. The form of the website allowed over 100,000 people to access the site and 23,000 to register. The quit percentage of the study then translates into helping 3,000 people quit smoking in this state.

In addition to studies of effectiveness and efficacy, the internet has been examined for its outreach effectiveness. The Rape, Abuse, and Incest National Network
(RAINN) created a national online hotline for victim and family counseling (Finn & Hughes, 2008). This organization created this online service due to the high numbers of rape that were not reported to authorities, the prevalence of rape in young age groups, the high usage rates of the internet by young people, literature on the effectiveness of online services, and requests for such services. The first eleven months of this novel program were evaluated through visitor satisfaction surveys, volunteer and supervisor surveys, and data from the system.

Finn and Hughes (2008) showed that visitors found the site easy to use (85.4% agreement) and would use the recommended services (64.9% agreement). Visitors also found the volunteer on the online chat to be knowledgeable (70.3% agreement). Most visitors would recommend the service to others (74.4%) and were satisfied with the services overall (72%). Satisfaction was significantly associated with volunteer knowledge and skills. Fifty-four volunteers from 33 states reported on 360 sessions. The majority of sessions involved a victim (86.6%), although family members of a victim (6.7%) and friends (5.2%) were also included. The assaults in question occurred during a variety of time: more than three months previously (60.1%), within the past three months (25.5%), and the past few days (14.4%). Rape was the primary topic of sessions (52%), but child molestation, incest, and other sexual assault were reported. Volunteers also reported difficulties with sessions (22.7% of volunteers) including technical problems, visitors stopping responses, and others. The majority of volunteers rated their sessions as very helpful (54%) or somewhat helpful (25%). Volunteers who experienced difficulties had significantly lower usefulness ratings of the session.
Supervisor data revealed that supervisors intervened when volunteers needed assistance for a variety of reasons (Finn & Hughes, 2008). Supervisors believed their interventions helped both the volunteers (75% agreement) and visitors (70% agreement). These authors conclude that this model is "viable and useful for a majority of visitors and is meeting the needs of volunteer service providers" (p. 215). They also suggest this model can be applied to areas beyond sexual assault. The fact that the majority of visitors were not in immediate crisis indicated that this service reached out to people who had not sought help or resolved their difficulties from these events.

Online programs have also found beneficial effects for treating shyness (Titov et al., 2010), Bipolar Disorder relapse prevention (Barnes et al, 2007), sexual dysfunction (Van Diest et al., 2007), prevention for health care and quality of life behaviors in HIV patients (Gustafson et al, 1999), and complicated grief (Wagner, Knaevelsrud, & Maercker, 2006). Researchers were expanding internet treatments to many different disorders in the DSM-IV, and finding positive results.

Meta-analyses have also shown support for the efficacy of online therapy. Griffiths and Christensen (2006) reviewed 15 RCTs on the effectiveness of self-help internet interventions over a variety of conditions. Online therapy was used to treat depression, anxiety, stress, eating disorders, insomnia, headaches, and encopresis. In supporting the argument for the efficacy of such programs, the authors found that 13 of 15 RCTs showed at least one positive outcome. Seven studies included participant evaluations, which were typically positive. Three of the effective sites (MoodGYM (depression), BluePages (depression), and OAP (anxiety cognitions) are publicly accessible.
Spek et al. (2006) conducted a meta-analysis of internet CBT interventions for depression and anxiety. The analysis included published and unpublished studies of internet CBT targeting depression and anxiety that required little or no therapist contact or support during the intervention. All studies had to be compared to a control group. Outcomes of studies included self or clinician rated symptom scales. Twelve studies with 2,334 total subjects were included in the final analysis. Five studies focused on depression and seven on anxiety. Overall, for both conditions, online CBT had an effect size of $FEA = .40$ or $MEA = .60$, while depression studies had an effect of $FEA = .27$ or $MEA = .32$, and anxiety had an effect size of $FEA$ and $MEA = .96$. Interventions with therapist support had a higher effect size ($FEA$ and $MEA = 1.00$) than did interventions without support ($FEA = .24$ and $MEA = .26$). The researchers concluded that internet CBT is not differentially effective depending on the problem addressed (anxiety versus depression) but whether the element of support is included. This analysis only included a small amount of studies, but more recent meta-analyses have been more comprehensive.

Barak, Hen, Boniel-Nissim, and Shapira (2008) conducted another meta-analysis on Internet interventions. The authors searched for all online therapy intervention studies in English referred journals before March 2006, examined effectiveness of Internet therapy, involved psychological intervention, had more than five participants, effectiveness was measured with a pre-post quantitative design and an outcome measure. The final sample included 64 articles reporting 92 different studies involving 11,922 participants. Two coders were used to classify moderators of interest in the studies and they achieved an agreement of 95 percent. Data from all studies were converted into effect sizes for analysis.
Results from Barak, Hen, Boniel-Nissim, and Shapira (2008) found an overall medium effect for online interventions ($ES = .53$). Due to variation in the individual effects, a series of moderator analyses were conducted. There was a significant effect for type of outcome measure ($Qb = 226.42, p < .001$), with expert evaluations ($ES = .93$) and behaviors ($ES = .61$) showing larger effect sizes than physical measures ($ES = .19$). Thus, online interventions were less effective at helping with physical or somatic problems, such as blood pressure or weight.

The type of problem treated also had significant differences in effect sizes ($Qb = 197.98, p < .001$). PTSD ($ES = .88$), Panic/Anxiety ($ES = .80$), and Smoking ($ES = .62$) showed larger effect sizes than weight loss ($ES = .17$) (Barak, Hen, Boniel-Nissim, & Shapira, 2008). This indicated that online therapy may be more effective for psychological problems than physiological ones. Additionally, there was no significant difference for time the effect was measured ($Qb = 2.46, ns$); thus, outcomes post-therapy and at follow-up had the same effects, indicating that online counseling produced lasting effects.

Results also found a significant effect for type of treatment modality ($Qb = 190.22, p < .001$) (Barak, Hen, Boniel-Nissim, & Shapira, 2008). CBT ($ES = .83$) effect sizes were larger than behavioral ones ($ES = .23$). Also, a significant effect was discovered for participant age ($Qb = 181.23, p < .001$). Participants younger than 19 years ($ES = .15$) and over 40 years ($ES = .20$) had lower effects than adults aged 25-39 ($ES = .62$) and 19-24 ($ES = .48$). Online counseling showed no differences in effect sizes whether delivered through a website or in eTherapy version through email or chat or other modalities ($Qb = 2.49, ns$). A significant effect was discovered for individual versus group therapy ($Qb =
Individual online therapy, whether in the form of website ($ES = .53$) or etherapy ($ES = .57$) was significantly more effective than online group therapy ($ES = .36$). The interactivity of the site was also found to have significant differences ($Qb = 32.07, p < .001$). Interactive websites ($ES = .65$) had significantly greater effects than static sites ($ES = .52$). Significant results were found for sites that screened participants ($Qb = 50.40, p < .001$). Closed sites that limited who could participate ($ES = .68$) had significantly greater effect sizes than open sites that treated anyone ($ES = .48$).

Results from Barak, Hen, Boniel-Nissim, and Shapira (2008) found no differences for synchronicity of therapy ($Qb = .20, ns$). Etherapy did show significantly greater effect sizes for the modality it was delivered ($Qb = 55.16, p < .001$). Audio ($ES = .91$), email ($ES = .51$), and chat ($ES = .53$) modalities had larger effects than webcam ($ES = .31$) or forums ($ES = .34$). For studies that directly compared the online modality to a face-to-face modality, there was no difference between these two modalities ($Qb = .32, ns$).

Overall, the authors argued that, when compared to studies of face-to-face therapy, these online results produce comparable outcomes. In considering all these findings, the authors argued that, “Internet-based therapy, on the average, is as effective, or nearly as efficacious, as face-to-face therapy” (p.141).

The meta-analytic results summarized the positive individual findings from the numerous randomized controlled trials described above. Online interventions of different types (e.g., self-help, therapist conducted email or instant message) showed positive results for clients. Preliminary research showed that these outcomes were maintained in real world clinical environments beyond the research lab as well. Researchers continue to examine online interventions for a variety of different problems as well. These findings
though supported the need to determine what types individual differences in potential clients would cause them to desire online therapy to support the need to provide this alternative treatment modality. While these reviewed findings were not specific to any population, the next section will review research specifically conducted on a college population.

**Research on College Students**

College counseling centers have historically been a place where Counseling Psychologists work to attempt to improve the mental health on campus. In recent years, though, increasing concerns about “troubled students,” violence on campus, and more students experiencing mental health problems have created additional strain on counseling centers providing appropriate services to all in need (Stone, 2008). Some university counseling centers are turning to the internet to help them provide preventative and intervention services for students to help alleviate this strain as well as provide services to students who otherwise would not seek traditional face-to-face services.

Richards and Tangney (2008) described how the University of Dublin implemented an online mental health community for one academic term and evaluates the results of such a program. The program had three main features: 1) An information portal with psychoeducational content, 2) email counseling which was posted to the site, and 3) a discussion board which a peer support network moderates. A total of 389 students registered for the service. Although most did not actively post to the site, over 1,700 topics were viewed on stress, depression, and academic anxiety. The use of email
counseling was analyzed comparing different colleges at the university with their face-to-face utilization rates. These results indicated that students from certain sections of a college may be more likely to use an online system than seek traditional services, notably Social and Human Sciences, and Sciences.

Only thirteen students returned surveys about the project, but these were very positive about the site (Richards & Tangney, 2008). The majority of surveys rated online counseling as useful and educational. Three of the thirteen respondents came for face-to-face services after online counseling, saying that it influenced their help seeking behavior. Positive results were found for reader participants who benefited from disinhibition from anonymity, having a way for further support, and reaching new audiences who do not seek traditional services. Issues about technical issues and implications of anonymity and safety arose as concerns about the project. These results described one of the first published descriptions of an online mental health, psychoeducation, and counseling website in a university community. More research needs to be done on such a community, but these findings indicated that such a service improved outreach efforts to the student community, encouraged those in distress to seek traditional services, and assisted those in distress who will not come in for face-to-face services.

Finn, Maples, and Han (2008) discussed the role of cybercounseling for counseling college students. They discussed use of these services for both U.S. and South Korean students, cultures which have the highest internet usage in the world. The authors discussed how online counseling is especially relevant for students in the current Millennial and Networked generation. The authors noted how the South Korean culture has embraced technology and how 29% of online counseling sites in the country are
affiliated with colleges and universities. These sites typically offered email, bulletin board, or chat room services. The authors provided a transcript from an actual online group counseling session for review. They concluded with the argument that online counseling would not try to replace traditional services but would be a significant new way to help clients in colleges.

The Internet has been used on college campuses to reach students who might normally go without treatment (Haas et al., 2008). These researchers sent an email with a link to a secure site with a screening questionnaire to assess depression and suicidality to college students at one private and one state university. Students who wanted to take the questionnaire registered and completed it online. The computer automatically scored the surveys and used the information to classify respondents into three tiers: Tier 1 (high risk), Tier 2 (moderate risk), or Tier 3 (no risk). After scoring, a screening counselor at each university received the scores and questionnaires of each respondent. The counselor then emailed the student with a standardized section for each tier group as well as a personalized response to the questionnaire results. The researchers used this email for the goal of “further communication by asking questions or inviting the students to elaborate” (p. 17). At this point, students could schedule an in-person evaluation or have an anonymous online dialogue with the counselor.

Haas et al. (2008) sent emails to 14,500 undergraduate students, and 1,162 completed questionnaires (8% response rate). Responses placed respondents into: Tier 1 (49.2%), Tier 2 (35.2%), and Tier 3 (15.6%). Only 13.6% of Tier 1 and 2 students were currently in psychotherapy, and only 21.1% were on psychotropic medication. The vast majority of students (88.9%) returned to their account to view the counselor feedback on
their questionnaire. Twenty-four percent of students engaged in one or more online dialogues with a counselor, with the average being 2.4 dialogues. These dialogues were significantly more likely to involve Tier 1 and 2 students than Tier 3 students ($\chi^2(2, N = 162) = 86.979, p < .001$).

Qualitative content analysis of the online dialogues found that students clarified their problems, expressed a desire to remain anonymous, wondered if these problems needed attention, asked about confidentiality, and said these dialogues caused them to be more open to future treatment (Haas et al, 2008). One hundred ninety students saw a counselor for an in-person evaluation. Students were significantly more likely to come in for an in-person evaluation if they had an online dialogue with a counselor (Fisher’s exact test, $p < .001$). Students who indicated that their symptoms impaired their life functioning were significantly more likely to seek an in-person evaluation ($\chi^2(2, N = 964) = 12.931, p = .005$). Counselors who evaluated the in-person students said at least three-fourths of them would not have sought help without this intervention. The online questionnaire tier placement was similar, in most cases, to the in-person tier placement. After evaluation, 132 students entered treatment (11.4% of questionnaire respondents). Students evaluated in-person were diagnosed with major depressive disorder (40.2%), adjustment disorder (31.1%), and substance abuse disorders (12.9%), and received an average of five treatment sessions. For respondents who did not come in for an evaluation, 15.4% said they sought help from another source, and 64.1% said they felt better.

Online interventions have also targeted the health behaviors of college students, including smoking. An et al. (2008) conducted a randomized controlled trial of an online smoking cessation program targeted to college students. A health questionnaire was sent
out to a college’s student body and eligible students were enrolled in the study. Students were then assigned to control (n = 260) or intervention (n = 257) conditions. The intervention condition involved participants making 20 weekly visits over a 30-week period to an online website in the form of a college life magazine. The participants reported on their health habits for the prior week, took an interactive quiz with feedback about smoking related or general interest topics, and viewed the online college life magazine which had several articles, at least one of which addressed smoking. Participants also received weekly emails from a peer coach. Incentives were used to encourage students to engage in the content. The control group was provided with internet links to academic and smoking cessation online resources.

An et al. (2008) found that participants averaged 18.9 check-ins in the intervention condition. Intervention students wrote their peer coach an average of 4.6 times. Results of a logistic regression showed that significantly more intervention group students (40.5%) than control group students (23.1%) reported not smoking any cigarettes in the previous 30 days (OR = 2.26, p < .05). There was no difference in smoking abstinence of six months or more between groups. The urine test showed significantly more abstinence in the intervention group (33.1%) than control group (16.9%) (OR = 2.43, p < .05). Among continued smokers, there was a significantly greater reduction in number of days smoking in the intervention (M = -5.8 days) than control group (M = -1.7 days) (p = .001, actual statistic not reported). Students in the intervention group were also significantly more likely to endorse a desire to permanently quit smoking (51% vs. 27%, p < .001). Participation in the intervention group was a significant predictor of 30 day abstinence (OR = 1.76, p < .05).
In another smoking cessation study, An et al. (2006) explored some factors to promote adherence to the online smoke cessation intervention. The authors theorized that, although online interventions may successfully target college students, changing some factors can significantly improve the intervention’s effect. The researchers changed some aspects of their intervention from a beta phase to its final phase. These modifications included making the format into an online college life magazine, including email support from peers, and having a more linear site structure. The modifications led to the modified intervention having more weekly participation (95% to 26%) (p value not reported), participation during the final week (93% to 26%, p < .001), and self-reported 30 day abstinence rates (16% to 4.3%, p = .03) when compared to the beta version of the intervention. The results indicated that the form of online intervention could both impact whether college students engage in it and differentially impact its results.

In addition to smoking reduction and cessation, the internet has been used to help treat perfectionism in college students. Arpin-Cribbie et al. (2008) examined the effectiveness of a web-based psychoeducational intervention on perfectionism and psychological distress. The authors noted that college counseling centers often see students with perfectionism-based psychological distress. Undergraduate students who indicated that perfectionism negatively impacted their lives were randomly assigned to one of three groups: control (n = 24), general stress management (n = 29), or stress management plus cognitive behavioral therapy (n = 30). Pre-test results showed that this sample was highly perfectionistic, anxious, and depressed. Structural equation modeling was used to assess results, and the model achieved good data fit ($\chi^2(2, N = 78) = 105.71$, $p = .02$, CFI = .963, IFI = .964, RMSEA = .066). The model revealed that psychological
distress \( z = 2.774, \ p = .002 \) and perfectionism \( z = 5.560, \ p < .001 \) were significantly improved with greater therapeutic intervention (cognitive behavioral therapy was greater than stress management, which, in turn, was better than control). Change in perfectionism was also significantly correlated with change in psychological distress \( r = .77, \ p < .001 \).

These results revealed that a web-based targeted intervention can help improve perfectionism and psychological distress in college students.

Several studies have researched how the internet can be used to combat body weight and shape concerns on campus. Taylor and Jones (2007) reviewed the research on the Student Bodies program for body shape and weight concerns. This course involved cognitive-behavioral interventions and runs eight weeks. This computer-based program was then put on the Internet for greater access. A randomized controlled trial (Winzelberg et al., 2000) revealed that the web-based version of Student Bodies led to significantly improved outcomes on body dissatisfaction \( F(1, 41) = 5.78, \ p = .021 \) and drive for thinness \( F(1, 41) = 4.29, \ p = .045 \). A second study (Celio et al., 2000) compared this web-based treatment to a control group and psychoeducational class in a sample of 76 university students randomly assigned to one of the three groups. At post-test, improvement for the Student Bodies condition over control was found for body weight/shape \( F(2, 54) = 5.23, \ p = .008 \) and drive for thinness \( F(2, 54) = 3.32, \ p = .044 \). At follow-up, the gains were maintained for body shape/weight \( F(2, 54) = 3.38, \ p = .042 \) and thinness drive \( F(2, 54) = 5.19, \ p = .009 \). These results indicated that this internet based intervention improved body image and behaviors in university women.

The web-based Student Bodies program has also been investigated for its ability to prevent eating disorders (Taylor & Jones, 2007). A randomized controlled trial (Taylor
et al., 2006) of the program compared prevention effects to a control group with a sample of 480 women. Results showed significant improvement for the Student Bodies group at post-test for weight concerns ($F(1,386) = 89.7, p < .001, d = 0.81$), eating disorder symptoms ($F(1,392) = 76.7, p < .001, d = .70$), and drive for thinness ($F(1,383) = 54.7, p = .001, d = 0.61$). At one year follow-up, weight concerns ($F(1,386) = 16.1, p < .001; d = .42$), eating disorder symptoms ($F(1,392) = 10., p = .001; d = .36$), and drive for thinness ($F(1,383) = 17.1, p < .001, d = .39$) all remained significantly improved in the intervention group. There were no overall significant differences on onset of eating disorders between conditions (statistics not reported). Onset of eating disorders did show significant differences in lessening their onset in two subgroups for the intervention group, those with elevated body mass indexes ($p = .001$, statistic not reported) and those that used compensatory diet behaviors ($p = .046$, statistic not reported). These results indicated that this program may be particularly effective in alleviating and preventing eating disorder symptoms in particular groups of women. Taylor and Jones (2007) also reviewed the existing literature on online weight-loss programs, including seven RCTs, and argued that they are as effective as, and less costly than, in-person treatment. The authors claimed that online programs were effective at treating weight loss maintenance issues.

In order for internet interventions to be effective with college students, students have to be receptive toward such programs. Lintvedt et al. (2008) investigated attitudes toward internet CBT in a population of university students. The authors sampled 630 Norwegian students and had a 58.3% response rate for a final sample of 367 students. The students completed measures of depression, negative thinking, previous help seeking,
use of the internet for health information, and intention to use the CBT-based MoodGym intervention. The intention to use MoodGym questions were constructed from the Theory of Planned Behavior. The researchers broke the sample into three groups: those who reported no need for help ($n = 195$), those who needed and sought help ($n = 50$), and those who needed and did not seek help ($n = 115$). The unmet need group had significantly more symptoms of depression than the no need group ($F(2, 333) = 19.90$, $p = .000$). The unmet need group also showed significantly more negative thinking than did the no need group ($F(2,349) = 16.20$, $p < .001$). For the total sample, the majority ($92.4\%$) of students had used the internet to search for health information, with the no need group doing this less (27%) than the sought help (54.1%) and unmet need groups (45.1%) ($\chi^2(2, N = 257) = 12.84$, $p < .002$). The unmet need group also had significantly more discussion of their own mental health issues on the internet than the no need group ($\chi^2(2, N = 257) = 7.20$, $p < .027$). Participants in the unmet need and sought help groups reported more need for online CBT than did the no need group ($\chi^2(2, N = 357) = 48.27$, $p < .001$). Across all the groups, 38.9% of students believed someone they knew would be in need of this internet service, and 84.1% of students had a positive evaluation of the program.

Lintvedt et al. (2008) used a regression analysis to examine what variables would predict intention to use MoodGym. Students in the no need group reported significantly less need for MoodGym than did the other two groups ($\beta = .49$, $p < .001$). Three variables significantly predicted intention to use this internet service (51% of the variance in intention to use MoodGym). Previous-help seeking contributed 17% of the variance, attitudes contributed 6%, and need for help contributed 26%. The authors noted that a
shortcoming of this research was that personality variables were not included. They also concluded that these internet services can benefit university students struggling with depression. These results indicated that students who are experiencing depression and negative thinking are receptive to internet CBT. If such students are receptive to this type of intervention, it can be argued that students would take advantage of such a service if it was provided to them.

These studies provided support for the hypothesis that internet counseling can be successfully used to treat concerns of a college population, including the prevalent issues of depression, anxiety, perfectionism, substance use, and weight concerns. Findings have shown that the internet can be successfully used to reach students who otherwise would not come in for services, and provided support for the added-value role of the use of the internet in university outreach efforts. The current project seeks to understand more about how the internet can be used to target specific students with particular characteristics, understanding the role of individual differences in attitudes toward internet services. The literature on individual differences in help-seeking is next reviewed.

**Individual Differences**

The field of Counseling Psychology has a long tradition of research on individual differences (Dawis, 1992). In their review of the current research on online counseling, Rochlen, Zack, and Speyer (2004) discussed the input variables, outcome studies, and process studies on online therapy. The authors called for more research to examine how individual differences such as personality and feelings about counseling stigma create
preference differences for online counseling. Griffiths (2001) encouraged future research on online counseling to explore whether consumers want online counseling and how factors such as age, SES, ethnicity, location, and gender influence consumer desire for this mode of counseling. The main hypothesis of this dissertation is that individual differences impact attitudes about online counseling and intentions to engage in it. After reviewing the few studies that examine the effect of individual differences on online counseling use, the literature on general counseling use and the individual differences of masculinity, stigma, and personality will be discussed.

The ISMHO clinical case study group has considered what factors make a person suitable for online therapy. Suler (2001) discussed the conclusions, which included considering a client’s computer skills/knowledge, knowledge of online communications/relationships, the client’s reading/writing skills for text-based therapies, previous/concurrent mental health therapy, physical/medical factors, cross-cultural issues, presenting concern/diagnosis as well as the client’s personality type. The group members concluded that “online therapy will not be appropriate for all people seeking help” (p. 679). Their considerations of factors for online counseling suitability pointed to future research needed in these areas of individual differences. What factors make one appropriate for online counseling awaits empirical testing.

Preliminary research has shown that people believe that websites are more appropriate for certain mental health concerns than others (Leach et al., 2007). The researchers surveyed 3,998 Australians on whether they believed websites, books, and health educators were helpful sources of mental health information regarding the four mental health issues of depression, suicidal thoughts, early schizophrenia, or chronic
schizophrenia. Respondents read a vignette about a person dealing with one of the four mental health concerns and selected which source of information that person should consult. Results found that books (66%) and health educators (85.8%) were rated as more helpful than websites (53.7%). Logistic regression was used to analyze predictors of rating each service as helpful. Websites were significantly less likely to be rated as helpful for the chronic schizophrenia condition than the other three conditions (depressed OR = 1.82, \( p < .001 \); early schizophrenia \( OR = 1.95, p < .001 \); suicidal \( OR = 1.65, p < .001 \)). Books were significantly less likely to be rated as helpful for the chronic schizophrenia condition than the other three conditions (depressed \( OR = 1.59, p < .001 \); early schizophrenia \( OR = 1.72, p < .001 \); suicidal \( OR = 1.29, p < .05 \)). Educators were statistically less likely to be considered for the chronic schizophrenia than the non-suicidal depression condition (\( OR = 1.37, p = .02 \)). In all three conditions then, the most extreme problem, chronic schizophrenia, led to more negative perceptions of helpfulness.

The researchers also examined the impact of various individual differences on the perceptions of helpfulness (Leach et al., 2007). For all three methods, people were more likely to rate them as helpful if they were younger (website \( OR = .86, p < .001 \); book \( OR = .87, p < .001 \); educator \( OR = .91, p < .001 \)). Those that believed in the importance of dealing with the mental health issue alone (\( OR = 1.43, p < .001 \)) were significantly more likely to rate the website as helpful. Also, those who believed in the importance of dealing with the mental health issue alone were significantly more likely to rate the book as helpful (\( OR = 1.55, p < .001 \)). Health educators ratings were higher with less personal stigma (\( OR = .97, p < .001 \)). This large scale survey of Australian adults revealed that the individual differences of age and personal beliefs about the stigma of mental health help
seeking led people to consider different sources of information for the person in the vignette. Importantly, more stigma and belief in handling mental health issues on one’s own led to people endorsing the website condition more often. Thus, websites and online therapy may reach such a segment of the population that has these beliefs and attitudes about mental health counseling. Further research is needed to support this hypothesis.

Christensen et al. (2006) conducted an examination of the effect of a psychoeducational website (BluePages), internet CBT (MoodGym), or a control group had on help-seeking behavior. While the two websites showed significant decreases in depression scores (4.5 points for MoodGym and 3.6 points for BluePages), they had mixed results on increasing subsequent help-seeking behavior. This may have been because these sites reduced the need for subsequent help, replaced such help, or actually inhibited future help-seeking. This study was one of the first to explore the dynamics of internet interventions on help-seeking, and further research is needed.

Differences have been examined amongst face-to-face clients, online therapy clients, and online support group clients (Skinner & Latchford, 2006). Online counseling clients were recruited from online counselors within IMSHO, a British Online Counseling company, and four independent online counseling sites. Online counseling practitioners then directed their current clients to a website for participation. Face-to-face clients were recruited from a British mental health practice and given actual questionnaires. Internet support group users were recruited from Internet support groups and directed to the study website.

Participants were administered the Jourard Self Disclosure Questionnaire (SD-40) to measure tendency to self-disclose and the Attitude to E-therapy Questionnaire, a
author-created five-item survey based on Suler’s (2002) theoretical predictive factors of online counseling engagement (Skinner & Latchford, 2006). The researchers were only able to get three online counseling clients to participate in the study, and this aspect was subsequently dropped. Thirty-nine face-to-face and 130 internet support group users participated in the project.

Independent samples t-tests were used to analyze the data (Skinner & Latchford, 2006). Internet users were less likely to be employed and were of a younger age than face-to-face clients. Face-to-face and internet group clients did not statistically differ on self-disclosure ($t(38) = 1.76, p = .08$). Only one attitude item (using a computer to communicate with a therapist) was significantly different between the face-to-face and online support groups, with support group clients having more positive attitudes ($t(38) = 2.7, p < .01$). When support group users were split between those with experience in therapy ($n = 100$) and those without therapy experience ($n = 29$), those with therapy experience were significantly more likely to have positive attitudes toward all five of the online counseling variables. These five variables were using a computer to communicate with therapist ($t(28) = 3.68, p < .001$), time of counseling ($t(28) = 4.46, p < .001$), ability to be distant and anonymous ($t(28) = 2.39, p < .01$), not seeing the therapist ($t(28) = 2.97, p < .001$), and ability to concentrate on the topic ($t(28) = 3.66, p < .001$).

A Pearson’s correlation was conducted on the combined sample to examine if attitudes influenced self-disclosure (Skinner & Latchford, 2006). People with higher self-disclosure scores had significantly more negative attitudes toward internet therapy in two areas: anonymity ($r = -0.18, p < .05$) and invisibility ($r = -0.18, p < .05$). The other three attitude factors were non-significant.
The only significant predictor of computer use in these results lent support to the idea of technological efficacy as an important individual difference in those who seek online counseling. People with prior therapy experience had significantly more positive attitudes toward online counseling, indicating that prior therapy experience may be an important predictor of online counseling use. There was no difference between groups in overall ability to self-disclose, but lower ability to self-disclose was related to significantly higher attitudes toward anonymity and invisibility, indicating that people with trouble self-disclosing may prefer online counseling for those reasons. The inability to recruit actual online clients despite having access to online therapist raises many questions about the generalizeability of these findings toward actual online counseling clients.

Theory suggested that Asians may prefer the internet due to anonymity and access issues which may improve underutilization rates. Chang and Chang (2004) examined Asian and Asian American college student attitudes toward seeking mental health counseling online. The sample was 109 college students (60 were U.S. citizens). A MANOVA revealed that Asians statistically preferred face-to-face over online services \((F(1,105) = 68.86, p < .001)\). Additional univariate ANOVAs revealed that females showed significantly more positive attitudes than males \((F(1,105) = 5.53, p < .05)\), and internationals showed significantly more positive attitudes than Americans \((F(1,105) = 4.05, p < .05)\). A significant three way interaction existed for online vs. face-to-face preference \((F(1,105) = 5.98, p < .05)\). In this interaction, Asian female international students had statistically more positive attitudes toward online help than did male Asian international students \((t(47) = 2.19, p < .05)\), but the groups did not differ on traditional
help attitudes ($t(37) = 1.68, p = ns$). Female Asian American students had more positive attitudes toward traditional help than did male students ($t(58)=2.30, p < .05$), but the groups did not differ on attitudes toward online help ($t(58) = -.03, p = ns$). A regression examined how the measured variables predicted attitudes toward online help. The sample was combined and only the variable of general computer use significantly predicted attitudes toward online counseling ($\beta = -.50, p < .001$).

These results gave further support to the role of personal efficacy and knowledge of computer use in attitudes toward online counseling. The authors argued that the preference for traditional counseling in all groups was due to people questioning the credibility of the new entity of online counseling. Such questioning should not be surprising given the new status of online counseling.

Only a few studies have looked at how individual differences impact attitudes toward internet interventions. From these studies it appeared that technological and online familiarity were important factors for a person having positivity toward online counseling. People who were less likely to disclose or want anonymity were also more inclined to use online counseling. There are many of individual differences that can be studied in regards to attitudes toward online counseling as well as engagement in actual online counseling. In addition to technological familiarity, this study considers three of the main individual differences in counseling: stigma, personality, and masculinity.
Stigma.

Stigma has been theorized to impact professional help-seeking (Corrigan, 2004). This section will review the theory of how stigma impacts attitudes and help-seeking. It will then review several studies that have empirically tested this hypothesis, finding that stigma does indeed negatively impact mental health help-seeking attitudes and behaviors. One route to reduce stigma in counseling for some people may be to receive services online, physically removed from the counseling office and therapist.

Corrigan (2004) provided a theoretical overview of how stigma impacts mental health help-seeking. Corrigan argued that stigma has two major dimensions, public stigma and self stigma. Public stigma impairs social opportunities such as getting a job, housing, or healthcare, and dealing with the criminal justice system. Self stigma is a person’s internalization of the negative attitudes about stigma, resulting in lower self-esteem. These negative impacts of sense of self and social opportunities are incentives for a person to not seek help in order to avoid the experience of stigma. Corrigan argued that future stigma research should examine the stigma to the help/care seeking relationship in other contexts such as medical health care, faith based communities, and programs developed by people with mental illness. Although not discussed by Corrigan, online counseling would be another one of these expanded contexts to examine.

Link and Phlan (2001) examined the construct of stigma from a sociological theoretical perspective. The authors conceptualized stigma as occurring when human differences are labeled, negatively stereotyped, placed into separate groups, experienced with status loss and discrimination, and is dependent on the exercise of power. The
authors noted that stigma has three major outcomes. These outcomes involve status loss for the stigmatized, additional unintended negative outcomes, and negative results that come from coping with the stigma itself. In turn, people seek to avoid being stigmatized. Thus, if counseling leads to stigma, people will avoid it to avoid the negative effects of stigmatization.

Several studies have empirically examined the stigma and help-seeking link. Vogel, Wade, and Hackler (2007) used Structural Equation Modeling to test a mediation model of how the public stigma of seeking mental health help is related to intentions to seek counseling. The researchers measured public stigma (Perceived Devaluation-Discrimination Scale), self stigma (Self-Stigma of Seeking Help Scale), attitudes toward help-seeking (Attitudes Towards Seeking Professional Help Scale), and intentions to seek help (Intentions to Seek Counseling Inventory). Data were collected from a large sample of undergraduate students ($N = 680$) who completed the self-report surveys. To test the model, the authors chose the CFI, IFI, SRMR, and RMSEA goodness of fit measures and an item parceling procedure with three items for each latent variable. The Satorra-Bentler scaled chi-square was chosen since the data did not show multivariate normality.

An initial measurement model showed good model fit (Satorra-Bentler $\chi^2(48, N = 676) = 82.96, p = .001, \text{CFI} = .99, \text{IFI} = .99, \text{SRMR} = .03, \text{RMSEA} = .03$). The authors found that a fully mediated model best fit the data (Satorra-Bentler $\chi^2 (51, N = 676) = 86.09, p = .001; \text{CFI} = .99; \text{IFI} = .99; \text{SRMR} = .03; \text{RMSEA} = .03$). An alternative model was also tested, showing good fit as well but did show a significant difference when compared to the more parsimonious model, which was chosen as the preferred model. A
boot-strapping procedure of 10,000 samples showed that the indirect effects were all statistically significant.

This model showed that the effect of public stigma was significantly positively related to the construct of self-stigma \((r = .26, p < .001)\), which was, in turn, significantly and negatively related to attitudes toward counseling \((r = -.76, p < .001)\). Attitudes were significantly related to intentions to seek counseling \((r = .59, p < .001)\). The direct effect of public stigma on intentions to seek help was no longer significant when these mediators were included in the model \((r = -.04, ns)\). The researchers also discovered that the effect of public stigma on self-stigma was present for both genders, but was stronger for men \((\beta = .35)\) than women \((\beta = .15)\) when gender models were compared \((\chi^2 (3, N = 676) = 8.2, p = .04)\). This finding indicated that men more strongly internalized societal messages about mental health help-seeking through self-stigma than women did.

These results supported the mediating role of self-stigma on the relationship between public stigma and attitudes toward counseling as well as help-seeking behavior. Public stigma negatively impacted people’s attitudes toward counseling as well as increased their internalized self-stigma, both of which were related to lower intentions to seek counseling. Also consistent with theory, these effects were stronger for men who have been theorized to more strongly believe in the stigma of counseling services. The authors also noted that the inclusion of self stigma in the model contributed to more variance accounted for in the model and was a closer predictor of the intentions to seek counseling.

Vogel, Wester, Wei, and Boysen (2005) used SEM to explore the mediating relationship of attitudes toward help-seeking on eleven different psychological factors.
and its relationship with intention to seek help for three different classifications of mental health concerns (interpersonal, academic, and substance use) in two different studies. In study 1, it was hypothesized that attitudes would mediate the relationship between these factors and help-seeking. In study 2, it was hypothesized that, for people who were actually in distress, there were significant inhibiting factors that would predict help-seeking. It also was hypothesized that a moderation effect would be found that showed these inhibiting factors would be more impactful on people who were in distress than those who were not.

In study 1, 354 college students completed the Stigma Scale for Receiving Psychological Help, Thoughts about Psychotherapy Survey, Distress Disclosure Index, Self-Concealment Scale, Disclosure Expectations Scale, Hopkins Symptoms Checklist-21, Social Provisions Scale, Attitudes Toward Seeking Professional Psychological Help Scale, and the Intentions to Seek Counseling Inventory. Since the data did not show multivariate normality ($\chi^2(2, N = 354) = 1061.29, p = .001$), the authors used the Satorra-Bentler scaled chi square statistic in analyses.

The measurement model showed good model fit (Satorra-Bentler $\chi^2(493, N = 354) = 884.52, p = .001$, CFI = .96, SRMR = .05, RMSEA = .05). The structural model also demonstrated good model fit (Satorra-Bentler $\chi^2(493, N = 354) = 884.52, p = .001$, CFI = .96, SRMR = .05, RMSEA = .05). Six of the psychological factors (previous therapy, social support, social norm, anticipated utility, and self-disclosure, and social stigma) were significantly related to help-seeking attitudes, accounting for 66% of the variance. Attitudes were significantly related to interpersonal ($r = .52$) and drug/alcohol issues ($r = .24$), but not to academic issues. The factor of self-disclosure had a significant direct
relationship on interpersonal issues ($r = .16$), while the factor of treatment fears had significant relationships with interpersonal ($r = .27$) and drug/alcohol issues ($r = .36$). A bootstrapping procedure with 1,000 samples from the data found that all twelve indirect effects were significant.

In the second study of this stigma research, Vogel, Wester, Wei, and Boysen (2005) conducted a prospective study to see which students would utilize counseling services in a two to three month span and relate help-seeking to self-disclosure and anticipated utility/risk of counseling. A sample of 1,128 undergraduate students completed the Distress Disclosure Index, Disclosure Expectations, Scale, and answered a question about experiencing a psychological stressor. Two to three months later, the sample was asked if they had sought counseling services during that time, with 617 participants of the original sample responding. Of this group (10.4%) had sought help. People who had experienced a distressing event were significantly more likely to attend counseling ($\chi^2(1, N = 602) = 12.1, p = .001$). Results of a logistic regression analysis ($N = 1,128$) showed a main effect for anticipated risk ($\chi^2(9, N = 600) = 6.2, p = .01$) and an interaction effect of distressing experience and anticipated risk ($\chi^2(9, N = 600) = 5.3, p = .02$) significantly classified those who sought help from those who did not. The interaction indicated that, when anticipated risk was high, people who had a distressing event were more likely to seek counseling.

These results furthered current theory on how psychological factors and outcome expectations influence attitudes toward counseling and help-seeking behavior. The authors argued that these results indicated that it is not a person’s experience of distress that leads to help-seeking, but rather an interaction between that distress and the person’s
anticipation of the outcomes of getting help. People’s attitudes toward counseling need to be assessed and addressed if they are going to be willing to actually seek services when in need.

Barney, Griffiths, Jorm, and Christensen (2006) examined stigma and seeking professional help in a sample of 7,000 Australian community adults. A 19% response rate provided a sample of 1,312 adults who read a vignette about a man experiencing depression. Self stigma varied by source of mental help-seeking depending on if it the professional was a psychiatrist (44%), psychologist (38%), counselor (34%), complementary practitioner (32%), or general practitioner (29%). A logistic regression analysis showed that perceived and self stigma both predicted help-seeking from different sources. Significant odds ratios were found for general practitioner (perceived OR = 1.28; self OR = 1.49), counselor (perceived OR = 1.19; self OR = 1.87), psychologist (perceived OR = 1.16; self OR = 1.79), psychiatrist (perceived OR = 1.16; self OR = 1.84), and complementary practitioner (perceived OR = 1.26; self OR = 1.70). These results revealed that stigma significantly impacted help-seeking from different mental health sources. It did not include online counseling as a source of help-seeking.

Research also has examined how stigma negatively impacts help-seeking intentions in minority women. Miville and Constantine (2007) examined how cultural values and social stigma impacted intentions to seek help for psychological distress in Asian college women (N = 201). Using a regression model to test mediation, these researchers found that stigma partially mediated the relationship between Asian cultural values and help-seeking (Δβ = .04, Goodman’s test statistic = -1.96, p = .05). Women with higher Asian values were less likely to seek help, and this effect was partially
explained through the Asian values increasing stigma. These results added support to the idea that values lead to stigma about help-seeking for mental health distress. This study examined a minority group of women’s specific cultural values, although the same principles might apply for male cultural values.

Internet programs have been hypothesized to reduce stigma toward help-seeking in users. Burns, Durkin, and Nicholas (2009) tested this theory and examined how an Australian internet program (www.reachout.com.au) could be used to decrease stigma and improve help-seeking behavior in adolescents. A survey of 777 females and 127 male users of the site found that 87% were repeat users and 40% used the site for over 1 year, while 24% of repeat users used the site once per week. Of these users, 81% said they would tell a friend about it, and 85% said it was an honest site they trust. A majority of users (59%) said they spoke with a mental health professional after visiting the site, while another 19% said they planned to visit one. The vast majority of users gained learning/understanding of mental health issues through the site. The authors pointed out that there was no comparable service in U.S. and that such a service could be “uniquely positioned to serve the needs of high-risk populations in the United States” (p. 96). Further study is needed to see if online counseling is more approachable to those who experience stigma as well as a means for reducing stigma.

Overall, findings from the stigma literature showed that people’s experience and fear of stigma are major reasons for not seeking help. Stigma impacted how people feel about mental help-seeking and influenced if they actually seek help. Empirical studies have shown how stigma negatively impacted help-seeking in traditional face-to-face contexts. Internet interventions have been hypothesized to reduce this stigma, but this has
yet to be tested well empirically. What is not known is whether these same dynamics apply to online mental health seeking or to what extent. The current study includes a measure of stigma to explore this unknown relationship. The next section will focus on the individual difference construct of masculinity.

**Masculinity.**

Another major area of theoretical inquiry on the appeal of online counseling has been masculine gender role. Theory has explored how traditional masculine gender roles created problems for men and caused them to be less likely to seek help when experiencing distress. This theory also has been supported with empirical evidence. This section reviews the theory and then empirical evidence around masculine gender role and help-seeking attitudes and behaviors. The one study that has directly examined the relation of masculinity to online counseling is then reviewed.

Addis and Mahalik (2003) theoretically explored how masculinity impacts men with their help-seeking behaviors. The authors noted that studies have shown that men seek mental health services less than women do, but that these sex-difference studies were not able to explain the reasons for such a disparity or account for individual differences. Addis and Mahalik argued that, instead, male help-seeking should be viewed through masculine gender-role socialization. This socialization consists of two major aspects, masculinity ideology and masculine gender-role conflict. Ideology involves beliefs about what a male is and how a man internalizes these norms. Gender-role conflict involves the negative consequences of holding masculine ideology. Thus, certain
types of men who endorse particularly problematic ideologies experience more gender-role conflict, leading to less help-seeking since help-seeking is not part of the masculine ideology. Help-seeking also is moderated by various psychological processes. These moderators are 1) perceived norms, 2) centrality of the problem to the man, 3) characteristics of helpers, 4) the man’s social group, and 5) perception of losing control. The solution to this problem is to either tailor interventions toward masculine ways of relating or assist conflicted men in improving these gender-role problems. Consideration of these moderators will help professionals achieve these goals.

In another theoretical article, Mahalik, Good, and Englar-Carlson (2003) examined how the construct of masculinity impacts the presenting concerns of counseling clients, negative attitudes toward help-seeking, and reduced help-seeking. These authors arranged presenting concerns into different masculinity “scripts.” These scripts were the “strong-and-silent” script (based on lack of emotion, stoicism, and control), the “tough-guy” script (based on not being vulnerable), the “give-‘em-hell” script (based on perpetrating violence), the “playboy” script (based on disconnected and unemotional sexuality), the “homophobic” script (based on avoiding intimacy with men), the winner script (based on competition and success), and the “independent” script (based on non-attachment and independence, p. 124). The authors noted that, when working with problematic masculinity, one should assess for the correct script, have the client identify the benefits of this script, then examine the costs of this script, and then help the client become more flexible in his script.

These authors also theorized that such scripts and problematic masculinity created barriers to help-seeking in men (Mahalik et al., 2003). One of their suggestions for
improving help-seeking behaviors in men was to “change the context of the help-seeking environment” and “creating alternative, nontraditional forums more congruent with masculine socialization” (p. 128). Online counseling may be one of these avenues to improve help-seeking attitudes and behaviors in men. Again, little research has examined these suggestions.

Theorists also have discussed how men who will not seek counseling may benefit from other types of services. McKelley and Rochlen (2007) theoretically explored the profession of coaching as one of these services. Executive coaching was first developed in the 1970s. It has grown tremendously and has an organization in the International Coaching Federation. The actual profession of coaching is subject to a range of definitions and is used in a variety of contexts. The authors presented evidence that coaching is beneficial to clients and that the majority of coaching clients are male. These authors argued that coaching can help men utilize help through five ways: 1) having a skill building focus, 2) decreasing the stigma of seeking help, 3) addressing resistance, 4) being a subset of mental health services, and 5) being an alternative or adjunct to traditional services. The authors also argued that many coaches utilized technology such as the telephone, email, and videoconferencing in their professions, which men may prefer. Future research will have to explore how coaching can help male mental health concerns. Coaching, like online counseling, is one of the ways people are trying to reach out to men to help them in order to get past the stigma of help-seeking in masculine ideology. If coaching is preferable to men as an alternative to traditional counseling, internet interventions may be preferable as well. Future research needs to examine if these efforts meet those goals.
Empirical studies supported the link between masculine ideology, gender role conflict, and help-seeking. Berger et al. (2005) examined male attitudes toward seeking help and the constructs of gender role conflict, male role norms, and alexithymia. Correlations revealed that alexithymia did not relate to help seeking attitudes ($r = -.14, ns$), but the gender role conflict dimension of restrictive affectionate behavior between men ($r = -.22, p < .01$) and the construct of traditional masculine ideology ($r = -.34, p <.001$) were statistically related to help-seeking attitudes. These results helped support the notion that the individual differences of specific aspects of gender role conflict and masculine ideology were related to male help-seeking behavior.

Good and Wood (1995) examined the effect of male gender role conflict and depression on psychological help-seeking attitudes. Structural equation modeling on male undergraduate students ($N = 397$) found a final model of good fit (NFI = .83). The factor of restriction-related gender role conflict significantly predicted lower attitudes toward help seeking ($r = -.50, p < .01$), predicting 25% of this variability in attitudes. Achievement-related gender role conflict predicted depression ($r = .46, p < .01$), explaining 21% of the variance in depression. Depression did not predict help-seeking attitudes ($r = .15, ns$). These results added further support that male gender role conflict inhibits help-seeking behavior.

Beyond understanding attitudes, research has explored how the construct of gender role conflict impacts male preference for different treatment conditions, as well as their emotional reactions to treatments (Blazina & Marks, 2001). College men ($N = 128$) read one of three different brochures for a psychological intervention and rated their intentions to try the intervention, their affective reaction toward it, and the power of the
therapist. Results revealed that men with higher gender role conflict had significantly more negative mood reactions toward all three treatment conditions \( (F(1,97) = 6.50, p = 0.012) \). Higher gender role conflicted men also had statistically more negative mood reactions toward the support group condition than the psychoeducational condition \( (F(2,98) = 3.17, p = .046) \). High gender role conflicted men had significantly more negative attitudes toward help-seeking than were low conflicted men \( (F(1,97) = 6.87, p < 0.01) \). These results revealed that level of gender role conflict had consequences for how men rate particular modalities of counseling. Although an online condition was not rated, it might be another treatment option that, like these three, some men may prefer; however, this assumption needs to be empirically tested.

Mediation models have explored variables affecting the relationship between gender role conflict and help-seeking for counseling (Pederson & Vogel, 2007). These researchers used Structural Equation Modeling to test the theory that the well researched relationship between gender role conflict and seeking counseling is mediated through self-stigma for seeking counseling, disclosure of distressing information, and attitudes toward seeking counseling. Male undergraduate students \( (N = 575) \) were recruited from classes to participate in the study. Participants completed the Gender Role Conflict Scale-I, Self-Stigma of Seeking Help scale, Distress Disclosure Index, Attitudes Toward Seeking Professional Psychological Help Scale, and the Intentions to Seek Counseling Inventory. An item parceling procedure was used in analyzing the data in the SEM model. Since the data were not multivariate normal \( (\chi^2(2, N = 575) = 338.77, p = .001) \), the Satorra-Bentler scaled chi square statistic was used. The authors chose four goodness-of-fit indices (CFI, IFI, RMSEA, and SRMR).
Results from Pederson and Vogel (2007) found that the measurement model fit the data well (Satorra-Bentler $\chi^2(94, N = 575) = 320.80, p = .01; CFI = .96; IFI = .96; RMSEA = .065$). Results also revealed that a partially mediating model fit the data best (Satorra-Bentler $\chi^2(97, N = 575) = 327.87, p = .01; CFI = .96; IFI = .96; RMSEA = .06; SRMR = .06$). This partially mediated model showed statistically better fit when compared to the fully mediated model (Satorra-Bentler $\chi^2(1, N = 575) = 6.46, p = .01$), and was thus chosen as the final model. In this model, gender role conflict still had a direct, statistically significant negative relationship with intentions to seek counseling ($r = 0.13, p < .05$).

In Pederson and Vogel’s (2007) model, gender role conflict had a significantly positive relationship with self stigma ($r = .37, p < .05$) as well as a significantly negative relationship to distress disclosure ($r = -.42, p < .05$). Self stigma was significantly negatively related to attitudes toward seeking counseling ($r = -.65, p < .05$), while distress disclosure was significantly positively related to attitudes ($r = .21, p < .05$). Attitudes in turn was significantly positively related to intentions to seek counseling ($r = .56, p < .05$). A bootstrapping procedure involving 10,000 random samples of the data found significant indirect effects for gender role conflict on intentions to seek help through self stigma and attitudes ($b = .37 \times -.65 \times .56 = -.14$) as well as disclosure distress and attitudes ($b = -.42 \times .21 \times .56 = -.05$). Gender role conflict, self stigma, and distress disclosure explained 53% of the variance in attitudes while gender role conflict and attitudes explained 29% of the variance in intentions to seek help.

These results revealed that the individual difference of gender role conflict in men was directly affecting one’s intentions to seek counseling as well as indirectly impacting
it through the variables of self stigma and distress disclosure, and attitudes toward counseling (Pederson & Vogel, 2007). These results have implications for addressing how men seek mental health help by altering informational materials or using particular psychotherapy techniques as well as addressing gender role socialization through societal change over time.

In one of the only empirical examinations of masculinity and attitudes toward online counseling, Rochlen, Land, and Wong (2004) examined male perceptions of online and face-to-face counseling. The researchers recruited 191 men from undergraduate classes and randomly assigned them to read a client overview, summary of the first counseling session, and a second session that was either an online therapy transcript or a face-to-face audio recording. The online transcript was created by transcribing the audio dialogue and changing certain words to make it computer appropriate. Each modality had either an emotional or cognitive therapy approach, resulting in four total conditions. Participants completed demographics, the Attitudes Toward Online Counseling Scale (OCAS), Gender Role Conflict Scale (GRCS), Counselor Rating Form-Short Form (CRF-S), and Counseling Approach Evaluation Form (CAEF).

Sixteen doctoral students were used as a manipulation check to ensure that the vignettes were cognitive and emotion based (Rochlen, Land, & Wong, 2004). A MANOVA showed that raters found a significant main effect for therapy approach \( F(1,12) = 37.07, p < .001 \); there were no significant differences for counselor skill among the conditions (statistics not reported). In another MANOVA, the modality (online versus face-to-face), level of Restrictive Emotionality (RE) (high or low), and
therapy approach (emotion versus cognitive) did not produce significant main effects, but there was a significant interaction for Modality and RE ($F(2, 182) = 3.41, p < .05$). Using univariate analyses, this effect held for counseling approach ($F(1, 183) = 6.65, p < .01$) but not evaluation of counselor (statistics not reported). Post hoc comparisons revealed that men with low RE had more favorable opinions of the face-to-face therapy vignettes ($F(1, 183) = 4.26, p < .01$) than the online vignettes ($F(1, 183) = 2.52, ns$).

Rochlen, Land, and Wong (2004) also found a main effect for time on the OCAS ($F(2, 182) = 19.89, p < .001$). ANOVAs revealed that these men had higher ratings of online counseling value ($F(1, 183) = 37.76, p < .001$) and lower ratings of online discomfort ($F(1, 183) = 5.73, p < .05$) at post-test. A significant Mode by Time interaction was also present ($F(2, 181) = 3.91, p < .05$). ANOVAs showed this effect was on online counseling value ($F(1, 183) = 4.07, p < .05$) and online discomfort ($F(1, 183) = 4.96, p < .05$). Post-hoc comparisons revealed that, at posttest, men in an online condition reported significantly less discomfort with online counseling than did men in the face-to-face condition ($F(1, 183) = 3.80, p < .05$), whereas online counseling value had no significant differences (statistics not reported).

These results indicated that men may not know what to make of online counseling since it was a novel approach and may need to be exposed to it to acquire more favorable attitudes (Rochlen, Land, & Wong, 2004). Men who went through all conditions reported more positive attitudes toward online counseling at post-test, while men who had an online counseling condition had significantly less discomfort with online counseling than did men who had a face-to-face condition. Results also indicated that men with high restrictive emotionality had more negative attitudes toward traditional counseling than
men low in this construct, but the groups did not differ in their attitudes toward online counseling. This finding supported the theory that online counseling may be attractive for those who have difficulty verbalizing feelings, but more research is needed to understand the mixed findings. To date, no other studies have tested the hypothesis that men may prefer online counseling.

Overall, research on masculinity and help-seeking in men has shown that gender role conflict and masculine ideology are negatively related to help-seeking attitudes and behavior. Theorists have argued that men who do not seek traditional services may be enticed to seek help through other means that better adhere to the masculine culture of self-reliance. Online counseling is one of these theorized services that still needs more empirical support in this area. The next major individual difference to be discussed is personality.

**Personality.**

Personality is a major individual difference construct found in the literature. Research has been conducted that examined how personality impacts aspects of counseling (Coleman, 2006). Recent research has even examined how personality may impact online counseling (Tsan & Day, 2007). Given the importance of personality to counseling, it is critical to understand its influence on people’s desire to use online services. This section will review the support for the Five Factor Model of personality in the literature as well as the preliminary findings of research on how personality affects internet use and therapy process.
Personality has been shown to influence a variety of individual, interpersonal, and social institution areas including psychological health, identity, relationships, and satisfaction (Ozer & Benet-Martinez, 2006). Although the main features of personality have been theorized in a variety of ways, the Five Factor model has dominated the recent literature. The Five Factor Model includes the facets of Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness. Cross-cultural research has shown that the five facets of personality found in American studies replicated across the majority of cultures. These findings provided support for this model applying to humans of all cultures (McCrae & Costa, 1997; McCrae & Terracciano, 2005), although some research disagrees (Ashton et al, 2004). This model also has been linked to child temperament and maturing developmentally from birth (McCrae et al, 2000). Such development from birth was possible since personality differences were theorized to be genetically inherited and variable due to evolution (Nettle, 2006). Sex differences have also been found in the Five Factor model (men have lower levels of Neuroticism, Extraversion, Agreeableness, and Conscientiousness), with larger differences found in more prosperous cultures (Scmitt, Realo, Voracek, & Allik, 2008). The Five Factor model has also been shown to arise in 26 of 28 popular personality inventories, supporting its theoretical importance (O’Connor, 2002).

Harkness and Lilienfeld (1997) theoretically discussed how personality traits can be taken into account in order to improve treatment planning in therapy. The authors outlined four major areas in which personality can aid treatment planning: focusing change efforts, realistic expectations, matching treatment to personality, and development of the self. The aspect of treatment matching with personality is particularly salient to
online counseling. The online modality provides a new opportunity to provide a different style of therapy to clients. As discussed earlier, theorists have argued that some types of people would prefer this type of treatment. Having the option of online counseling would allow for such decisions to be made at intake.

Research on the Five Factor model’s impact on help-seeking, working alliance, and therapy outcomes was limited. Coleman (2006) conducted a pilot study to understand these relationships. In a sample of community mental health participants \( N = 103 \), the relations amongst working alliance, the Five Factor Model of personality traits, and outcome measures were assessed. When controlling for pre-treatment symptoms and treatment duration, Extraversion \( r = .30, p < .05 \) and Neuroticism \( r = -.27, p < .05 \) were significantly correlated to the outcome measure of well-being. Neuroticism \( r = .48, p < .01 \) was significantly related to symptoms. Working alliance had significant correlations with Extraversion \( r = .29, p < .05 \), Openness \( r = .41, p < .01 \), Agreeableness \( r = .53, p < .01 \), and Conscientiousness \( r = .28, p < .05 \). Coleman argued that these results point to the importance of personality in the process and outcome of counseling. Further research is needed to bolster this argument.

Preliminary work has tried to understand how personality impacts actual mental health treatment utilization (Hopwood et al., 2008). In this study, the authors used the Five Factor model to explore how personality traits impacted actual mental health service usage both retrospectively and prospectively. In a sample of 712 participants, results showed a variety of significant relationships for past treatment use. Extraversion was significantly and negatively correlated to medication use \( r = -.12, p < .01 \), Agreeableness was related to family therapy use \( r = .09, p < .05 \). Openness was related
to individual therapy ($r = .12, p < .01$), inpatient hospitalization ($r = -.09, p < .05$), and family therapy ($r = .08, p < .05$), while Conscientiousness was related to inpatient hospitalization ($r = -.13, p < .001$) and self help groups ($r = -.10, p < .01$). Neuroticism was related to the most constructs with significant correlations with individual therapy ($r = .16, p < .001$), inpatient hospitalization ($r = .19, p < .001$), medication use ($r = .16, p < .001$), group therapy ($r = .09, p < .01$), and family therapy ($r = .08, p < .05$).

Personality also was significantly related to prospective treatment in a sample of 522 participants, but with somewhat different findings than the retrospective results (Hopwood et al., 2008). Extraversion was significantly and negatively correlated to medication use ($r = -.13, p < .001$), individual therapy ($r = -.10, p < .01$), and group therapy ($r = -.10, p < .01$), while Agreeableness was related to family therapy use ($r = .11, p < .01$). Openness was not related to any treatment modality, while Conscientiousness was related to inpatient hospitalization ($r = -.08, p < .05$), medication use ($r = -.07, p < .05$), group therapy ($r = -.08, p < .05$), and family therapy ($r = .08, p < .05$). Neuroticism, again, was related to the most constructs, with significant correlations to individual therapy ($r = .12, p < .001$), inpatient hospitalization ($r = .13, p < .001$), medication use ($r = .14, p < .001$), and group therapy ($r = .15, p < .001$). Using a hierarchical logistic regression, results found that personality traits were significant predictors of retrospective individual therapy utilization ($\chi^2 = 27.42, p = .001$) with unique effects for Neuroticism ($\beta = .41$) and Openness ($\beta = .49$). The same analysis for prospective individual therapy had non-significant results (statistics not reported).

Klockner and Hicks (2008) investigated how personality differentiated people who had sought interventions in their lives from those who had not. In a sample of 200
adults in England, the researchers found that 116 people had sought at least one of six
different types of help, while 84 had not sought any help. A discriminant analysis
revealed a significant function for personality traits between help seekers and non-help
seekers, predicting 68% of group members accurately ($\chi^2 = 30.27, df = 5, p < .0001$).
Help-seeking was best predicted by higher Openness (function = .83) and Extraversion
(function = .77) compared to Neuroticism (function = -.20), Conscientiousness (function
= .09) and Agreeableness (function = .04). A second discriminant analysis revealed a
significant function for personality traits and positive personality variables between help
seekers and non-help seekers, predicting 71% of group members accurately ($\chi^2 = 34.79,$
$df = 8, p < .001$). Help-seeking was best predicted by higher Openness (function = .77),
Extraversion (function = .71), hope (function = .57), personal growth initiative (function
= .51), and goal setting (function = .325) compared to Neuroticism (function = -.18),
Conscientiousness (function = .08), and Agreeableness (function = .03).

The personality construct of Extraversion has been associated with various coping
strategies, including help seeking (Amirkhan, Risinger, & Swickert, 1995). Using the
NEO-PI, these researchers found that Extraversion significantly predicted seeking social
support ($R^2 = .08, p = .03$). A second study examined how personality would impact the
help seeking behavior of people given the task of trying to solve unsolvable anagrams.
Results from this second study found that Extraversion significantly predicted help-
seeking latency ($R^2 = .11, p = .01$), while the personality facets of Agreeableness ($R^2$
= .01, ns) and Neuroticism ($R^2 = .06, ns$) did not.

Extraversion has also been studied for its differential impact on how clients
experience counseling sessions (Nocita & Stiles, 1986). These researchers argued that
personality was one individual difference characteristic of clients that affected how they experience a counseling session. They focused on the facet of Introversion-Extroversion as measured by the MMPI. The Session Evaluation Questionnaire was used to determine client perception of the therapy session. Eighty-three clients across two samples at a university clinic were seen for counseling and completed the MMPI and SEQ after their sessions. Results showed that social introversion scores were significantly and negatively correlated with session Positivity ($r = -.43, p < .05$), Smoothness ($r = -.60, p < .01$) and Depth ($r = -.54, p < .01$), and were not related to Arousal ($r = -.37, ns$).

The authors used these results to argue that introverted clients are more likely to find counseling to be uncomfortable, tense, and difficult while having negative affective reactions after the sessions compared to extraverts. These results did not indicate if these reactions for introverts impacted them continuing with counseling, but the results called for further research to examine how personality impacts clients’ experience of counseling. Given the more removed nature of online counseling, introverts may not experience the same negative impact of sessions as these results indicated for face-to-face sessions, but this awaits empirical testing.

In addition to impacting counseling process and outcome, personality characteristics have been shown to relate differentially to patterns of Internet use (Hamburger & Ben-Artzi, 2000). These researchers factor analyzed various self-reported uses of the internet and found three main factors of usage: social, information, and leisure. Seventy-two people rated their involvement on these scales and took the Eysenck Personality Inventory. Correlates of the dimensions of Extraversion and Neuroticism to the three different uses of the internet were then examined.
Hamburger and Ben-Artzi (2000) showed that Extraversion was significantly related to leisure use of the internet \((r = .36, p < 0.001)\), while Neuroticism was significantly related to information use of the internet \((r = -.27, p < 0.05)\). When results were examined by gender, the same relationships for Extraversion with leisure \((r = .41, p < .001)\) and Neuroticism with information \((r = -.33, p < .05)\) held for men. Women showed a different pattern of significant relationships, with Extraversion \((r = -.49, p < .001)\) and Neuroticism \((r = .57, p < .01)\) being related to social use of the internet.

These results indicated that people with different personality traits used the internet for different purposes in varying degrees. Gender also affected the relationship of personality to use of the internet. While this study did not explicitly ask about the use of the internet for health information or services, the results indicated that personality may affect what people would use the internet for online counseling as well.

Swickert, Hittner, Harris, and Herring (2002) also examined the relationships of personality and internet use, but included the construct of social support. The researchers had people \((N = 206)\) rate their use of the internet, their social supports, and their personality characteristics on the NEO-FFI. A factor analysis of the internet use survey indicated three factors of use: Leisure, Information Exchange, and Technical. Personality did not significantly correlate with the Technical dimension of internet use. Information had trends toward significance for the traits of Neuroticism \((r = -.11, p = .07)\) and Agreeableness \((r = -.10, p = .09)\). Leisure produced significant effects for Neuroticism \((r = -.16, p = .04)\) and Conscientiousness \((r = .15, p = .05)\) with a trend for Extraversion \((r = .13, p = .08)\). These results added further support to the notion that personality relates to use of the internet for different activities.
Tuten and Bosnjak (2001) also examined the relationship of personality to internet use. They created a survey to gauge participant use of the internet in four different domains: product information, entertainment, education, and news. Personality was assessed with the Five Factor model through Goldberg’s Bipolar Inventory. Results revealed that the personality facets of Extraversion, Agreeableness, and Conscientiousness were not significantly related to any of the internet usages. Neuroticism was significantly related to internet product information \((r = -0.11, p < .05)\) and learning \((r = -0.11, p < .05)\), while Openness was significantly related to internet entertainment \((r = 0.13, p < .05)\) and product information \((r = 0.13, p < .05)\). Further analyses classified participants as high or low on each personality facet and then cross-tabulated them to examine their relationships with internet use. Again, Extraversion and Agreeableness showed no significant relations to types of internet use. High Conscientiousness had lower internet entertainment use \((\chi^2 = 6.89, p < .01)\), while participants high in Neuroticism showed significantly less use of the internet for learning \((\chi^2 = 5.50, p < .01)\). Openness had significant relationships to entertainment \((\chi^2 = 10.75, p < .001)\) and product information \((\chi^2 = 3.77, p < .05)\).

People with certain personality characteristics may find it easier to be themselves while communicating online (Amichai-Hamburger, Wainapel, & Fox, 2002). These researchers had 40 adult chat users engage in a chat discussion for 20 minutes, answer some questions about their social interactions, and complete the Eyseneck Personality Questionnaire. Participants were asked about whether they revealed more about themselves online or in face-to-face interactions, creating a "real me" index with higher scores relating to more use of the internet. Significant correlations were found for
Extraversion \( (r = -0.45, p < .01) \) and Neuroticism \( (r = 0.33, p < .05) \). An ANOVA based on people with high and low facets of these traits revealed a significant main effect for Extraversion \( (F(1, 36) = 6.38, p = .016) \) and a trend for Neuroticism \( (F(1,36) = 3.43, p = .072) \) on the index. Neurotic introverts had the highest mean score on the index \( (M = 55.98) \), while Non-neurotic extraverts had the lowest score \( (M = 46.06) \). These results supported the idea that facets of personality make face-to-face communication more difficult for some people and that these people may be more comfortable on the internet.

Personality characteristics also have been shown to influence group therapy dropout (MacNair & Corazzini, 1994). These researchers wanted to examine what individual characteristics significantly predicted dropouts from group therapy among 155 group therapy clients at a university. Discriminate analysis was conducted to predict continuers from dropouts and found a significant function \( (\chi^2(8, N = 102) = 28.91, p = .0003, \text{Wilks’ lambda} = .74, R^2 = .26) \). Among the significant predictors of dropout (substance abuse, somatic complaints, roommate problems, general fighting, fighting with a partner) was the personality construct of Introversion \( (F(7, 94) = 4.40, p = .0003) \). The authors argued that Introversion has this effect because clients with this trait had more difficulty disclosing to others in a group setting.

Beyond counseling process, the relations between the Big 5 facets of personality and health behaviors have been examined in college students (Raynor & Levine, 2009). College students \( (N = 2,000) \) completed the National College Health Assessment and a measure of the Big 5 personality facets. Results of a linear regression revealed that the facet of Conscientiousness was significantly related to higher seat belt use \( (r = .22, p < .05) \), strength exercise \( (r = .13, p < .05) \), sleep quality \( (r = .15, p < .05) \), alcohol harm
reduction strategies \( r = .19, p < .05 \), and eating fruits/vegetables \( r = .16, p < .05 \). More conscientious people were significantly less likely to smoke \( r = .15, p < .05 \), use alcohol \( r = .19, p < .05 \), and binge drink \( r = .18, p < .05 \). Extraverts were significantly more likely to use strength exercise \( r = .12, p < .05 \), smoke \( r = .18 \), use alcohol \( r = .25, p < .05 \), binge drink \( r = .29, p < .05 \), use less alcohol harm reduction strategies \( r = .18, p < .05 \), have more sex partners \( r = .26, p < .05 \), have less use of condoms \( r = .25, p < .05 \), and have poorer sleep quality \( r = .18, p < .05 \). Neuroticism was significantly related to more smoking \( r = .14, p < .05 \) and less sleep quality \( r = .30, p < .05 \). Agreeableness was significantly related to lower binge drinking \( r = .13, p < .05 \), more alcohol harm reduction \( r = .13, p < .05 \), and lower number of sexual partners \( r = .16, p < .05 \). Openness was significantly related to eating fruits/vegetables \( r = .14, p < .05 \). These results indicated that personality had significant relationships with various health behaviors in college students. Mental health care behaviors were not assessed in this study but these results indicated that personality may also be related to that domain as well considering how it was significantly related to other self-care behaviors.

Tokar, Fischer, Schaub, and Moradi (2000) explored the relations of the Big Five personality factors, masculinity variables, mental health symptoms, and help-seeking attitudes. Results of regression analysis mediation tests revealed that the Big Five personality variables completely mediated twenty and partially mediated another nine of the 31 masculinity variables on the counseling related variables. Only the masculinity facet of Restrictive Affectionate Behavior Between Men had an impact on help-seeking attitudes that was not mediated by personality \( R^2 = .04, ns \). The authors argued that the impact of masculinity on mental health outcomes was actually an effect of personality.
The non-mediated effect of RABBM indicated that this facet of masculinity had its own unique impact on help-seeking attitudes, an effect that has been found elsewhere in the literature. The authors argued that these findings showed that individual differences in counseling outcomes may be more related to male biology than culturally impacted gender roles. Thus, the study of personality variables is important to examining individual differences in help-seeking attitudes and behavior.

Personality also has been found to relate to client expectations about counseling (Schaub & Tokar, 1999). Schaub and Tokar examined the five facets of personality measured on the NEO-FFI-S with the Expectations About Counseling measure in 246 university students. Five clusters emerged from the EAC data. The researchers named these groups according to their ratings of aspects of their beliefs about counseling. The groups were called Realists, Skeptics, Idealists, Dependents, and Pessimists. A one-way MANOVA revealed that there were significant differences according to personality (Wilks' Lambda = .72, F(20,787) = 4.16, p < .001). A discriminant analysis was then performed to examine the specifics of these differences. Two significant functions emerged. Function 1 (Wilks' Lambda = .72, χ²(20) = 80.04, p < .001) was defined by high Neuroticism and low Openness and maximally differentiated the Realists from the Idealists. Function 2 (Wilks' Lambda = .85, χ²(12) = 39.62, p < .001) was defined by high Extraversion as well as Openness and Conscientiousness and maximally differentiated the Idealists from the Pessimists. The authors argued that facets of personality impacted expectations about counseling.

In one of the few empirical investigations of individual differences in online counseling use, Tsan and Day (2007) investigated the role of gender and personality as
predictors of online counseling use. The researchers recruited 176 college undergraduates (30 males, 146 females) and had them fill out the NEO-FFI and ATSPPH-S to assess personality and attitudes toward help-seeking. Help-seeking attitudes were assessed for face-to-face, email, instant message chat, internet microphone, and videoconferencing conditions. Personality variables were scored low, medium, and high. A MANOVA showed that women had more positive attitudes toward help-seeking than did men ($F(5,170) = 4.58, p < .01$). Follow-up ANOVAs showed that women preferred face-to-face ($F(91,174) = 12.6, p < .01$) and email ($F(1,174) = 4.26, p < .01$) over men, but the groups did not differ on microphone ($F(1,174) = 3.2, ns$), video conferencing ($F(1,174) = 2.2, ns$), or instant messaging ($F(1,174) = .62, ns$).

Tsan and Day (2007) next used a MANCOVA, removing the effect of gender, to assess the effect of personality. Only the personality factors of Extraversion and Neuroticism were assessed. Extraversion was the only significant predictor of online counseling seeking ($F(10,326) = 1.46, p < .15$). Follow-up analysis showed that this effect only held for the microphone condition ($F(2,167) = 2.28, p < .15$), and the other four conditions had no significant differences in Extraversion and help-seeking. Neuroticism had a non-significant effect ($F(10,167) = 1.27, ns$). These results suggested some initial findings on the effect of personality on online help-seeking. Notably, while women had more positive attitudes than men on face-to-face services (a generalized finding in the help-seeking literature), the difference on attitudes disappeared between the genders on three of the internet conditions. Since many students are unfamiliar with online counseling formats, future research may have to explain these formats better in order to get more accurate attitudes toward their desirability for counseling. Also, the
other aspects of the Big Five Personality facets should be explored as they relate to attitudes toward seeking counseling online.

Thus, personality has been shown to influence client expectations about counseling, experience in counseling sessions, dropout rates from counseling, internet use, and self-care behaviors. Preliminary evidence showed that some aspects of personality also influenced attitudes toward online counseling. More research is needed to understand the relationships of the Big 5 aspects of personality to online counseling use.

**Hypotheses**

*Internet comfort*
H1: Comfort with online communication and technology would have a significant positive relationship with attitudes toward online counseling and intentions to seek online help.

*Stigma*
H2: Self-stigma would be significantly positively related with attitudes toward and greater intentions to seek online counseling when compared to face-to-face counseling.

*Gender role conflict*
H3: GRC would have a significantly more positive relationships with attitudes toward online counseling and intentions to seek help when compared to attitudes toward face-to-face counseling and intentions.

*Personality*
H4: Openness would have a significant positive relationship with attitudes toward online counseling and intentions to seek online help.

H5: Extraversion would have a significant positive relationship with attitudes toward online counseling and intentions to seek online help.

The other three personality facets of Conscientiousness, Agreeableness, and Neuroticism would also be examined for their relationship to attitudes toward online counseling and intentions to seek help as a general research question.
CHAPTER III

METHOD

Introduction

The following chapter describes the participants and procedure of collecting data for this dissertation. Participants were students at a large, Midwestern university who received course credit for their participation. Next, each of the measures that participants received is described. Measures were selected to accurately capture the individual difference variable of interest. Finally, the statistical analyses used to analyze the data are described.

Participants and Procedure

This study collected data from 499 students at a public, Midwestern university. Information about data cleaning and data removal is discussed in the “Preliminary Analyses” section of Chapter IV. A power analysis was run with GPower 3.1 (Erdfelder, Faul, & Buchner, 1996) for the separate regressions to be analyzed. The multiple regression that required only male participants for the GRC measure, with an effect size of .10, alpha of .05, power of .95, and four total predictors, required 178 male participants. The regression analysis for the personality five factors, with an effect size
of .10, alpha of .05, power of .95, and five total predictors required 204 total participants. Thus, this project met power needs by obtaining 197 male participants and an additional 297 female participants for the combined analyses.

The data set consisted of 494 participants, 297 females and 197 males (no students classified themselves as transgender). Due to technological issues, a question regarding age of participants was not recorded, so the sample is described based on a question about year in school. The majority of the sample were non-first year students (80.7%). There were 95 first-year students (19.2%), 108 second-year students (21.9%), 95 third-years (19.2%), 86 fourth-years (17.4%), 56 fifth-years (11.3%), 13 sixth year or more (2.6%), and 41 graduate students (8.3%). The majority of the sample, 417 students, described themselves as White/Caucasian (84.4%). The remainder consisted of 47 African-American (9.5%), seven Latino (1.4%), four Asian (0.8%), two Native American (0.4%), nine Biracial (1.8%), six Multiracial (1.2%) and nine other ethnicity students (1.8%).

Participants were recruited through the University of Akron’s Human Subject Pool in accordance with the Department of Psychology policies. Participants received participation credit points for their time, and the entire procedure took less than one hour to complete. Participants were linked to an online survey management system to complete the measures for the study. Participants completed a consent form prior to completing any measures (see Appendix G). Participants completed a demographics form with questions about prior counseling and internet familiarity, the OCAS, IPIP, SSOSH, and men only completed the GRCS. Half of the participants received the face-to-face version of the ICIS, while the other half received the online version. Participants received
a debriefing form describing the nature and purpose of the research after completing the surveys (see Appendix H). A manipulation check was also administered to make sure the participants understood the online or face-to-face condition (see Appendix I). The measures were administered in random order using the Latin square design to reduce completion effects.

Measures

**Online counseling attitudes.**

The Online Counseling Attitudes Scale (OCAS, see Appendix A), created by Rochlen, Beretvas, and Zack (2004), is one of the few validated measures available for examining attitudes toward online counseling. The authors reported psychometrics of two separate scales (one for attitudes toward online counseling and one for attitudes toward face-to-face counseling), and each has two subscales (value and discomfort). More specifically, the online counseling scale has ten items split between five value items and five discomfort items. The face-to-face scale has all the same items but with the terms “face-to-face” replacing the term “online.” Participants respond to questions with Likert-scale responses from 1 (*strongly disagree*) to 6 (*strongly agree*). Higher scores reflect more positive attitudes toward online or face-to-face counseling.

Results with the OCAS have found that people had more favorable attitudes toward face-to-face than online counseling. Factor analysis validated the separate scales with the two distinct value and discomfort subscales. Test-retest reliability was conducted
on a sample of 51 of the original takers who completed the OCAS again three weeks later; coefficients ranged between the acceptable levels of .77 and .88. Significant positive correlations were found between both value and discomfort subscales of online counseling and general help-seeking attitudes. Attitudes toward face-to-face counseling significantly negatively correlated with fear of intimacy and discomfort, but attitudes toward online counseling did not have a significant relationship with fear of intimacy or discomfort. There was a significant positive relationship with email comfort and attitudes toward online counseling, but there was no relationship between email comfort and the face-to-face scale. Neither the face-to-face nor the online scale was related to social desirability or age. Self-reported interest in online counseling was significantly and positively related to the online counseling scale. Self-reported interest in face-to-face counseling also was significantly and positively related to the face-to-face scale. The current study found an internal consistency of .88 for the online questions of the OCAS and an internal consistency of .92 for the face-to-face questions.

**Gender role conflict.**

The Gender Role Conflict Scale (GRCS; O’Neil, Helms, Gable, David, & Wrightsman, 1986; see Appendix B) assesses male attitudes, behaviors, and conflicts toward gender roles. The GRCS was created using an item-generation technique to write items that captured aspects of the gender strain model. Next, data reduction methods of factor analysis with both orthogonal and oblique rotations were used to examine the scale. MANOVAs were used to gather construct validity evidence, whereas Cronbach’s alpha and test-retest reliabilities were conducted to examine reliability properties.
The final scale consisted of 37 items rated on a 1-5 scale from 1 (strongly disagree) to 5 (strongly agree), with higher scores indicative of more gender role conflict. The scale is separated into four distinct factors: Success, Power, and Competition (SPC, 13 items); Restrictive Emotionality (RE, 10 items); Restrictive Affectionate Behavior Between Men (RABBM, 8 items) and Conflicts Between Work and Family Relations (CBWFR, 6 items). All items had a factor loading of at least .35 on their respective factors. Four-week test-retest reliabilities were all acceptable: SPC = (.84), RE = (.76), RABBM = (.86), and CWFR = (.72). Internal consistency reliabilities also were acceptable: SPC = (.85), RE = (.82), RABBM = (.83), and CBWFR = (.75; O’Neil et al., 1986). For the current project, internal consistencies were: SPC = (.88), RE = (.91), RABBM = (.88), and CBWFR = (.83).

The GRCS was compared to the Personal Attributes Questionnaire for validity evidence since the PAQ measures psychological masculinity and femininity. A MANOVA showed a significant main effect for GRCS score and PAQ grouping \( (F(12, 1535) = 9.87, p < .001) \). Univariate analyses showed significant differences for the GRCS factors of SPC \( (F(3,519) = 7.86, p < .001) \), RE \( (F(3,522) = 20.43, p < .001) \), and RABBM \( (F(3,522) = 9.69, p < .001) \). For all of these, men grouped as masculine according to the PAQ had significantly greater GRCS scores. No significant differences were found for CBWFR.

Further support for the validity of the GRCS has come from a variety of studies examining its relation to different constructs as well as other factor analyses of the measure. The GRCS has showed significant positive correlations with a variety of masculinity measures including the Masculine Gender Role Stress Scale, Brannon
Masculinity Survey, Masculine Role Norms Scale, Male Role Norm Inventory and others (O’Neil, 2008). Moradi, Tokar, Schaub, Jome, and Serna (2000) used indicator-to-factor analysis in their Confirmatory Factor Analysis of the GRCS in order to provide structural validity for the GRCS. Results showed good model fit for the four different factors of the GRCS when using both rationally derived parcels (SRMR = .049, GFI = .94, AGFI = .91, CFI = .95, and NNFI = .93) and random parcels (SRMR = .042, GFI = .95, AGFI = .93, CFI = .96, and NNFI = .95). Other factor analyses have shown that the GRCS has good model fit with Latino, Asian, Black, gay, and international men (O’Neil, 2008).

**Self-Stigma.**

The Self Stigma of Seeking Help Scale (SSOSH; Vogel, Wade, & Haake, 2006; see Appendix C) was developed by creating 28 items designed to tap into aspects of stigma discussed in the literature. Participants respond to statements on a five-point, Likert-style scale from (1) *strongly disagree* to (5) *strongly agree*. These items were examined for clarity by 54 college students who found them acceptable, although a few were reworded. Two psychologists then examined the items for content validity, and rated them from 1 to 5 on how they fit the concept. The inter-rater agreement between these raters was .78; three items were eliminated, leaving 25 items for analysis. These items were then given to a sample of 538 college student who indicated their level of agreement on a scale of 1 to 5. Those items with the highest item-total correlations were then used to create the final scale. Ten items comprised the new SSOSH scale with an internal consistency of .91. An internal consistency of .87 was found for this study. A test-retest examination at 2 months for reliability showed the SSOH has a score of .72.
An exploratory factor analysis found that this scale consisted of one factor comprising 53% of the total variance with all items having loadings of over .50. A confirmatory factor analysis with maximum likelihood estimation was conducted on a sample of 470 college students. Results showed good model fit to the unidimensional model ($\chi^2(35, N = 470) = 103.3, p = .001$, CFI = .98, RMSEA = .04, SRMR = .04).

To provide construct validity, correlations showed that the SSOSH had significant relationships with attitudes toward seeking counseling ($r = -.63$), intentions to seek counseling ($r = -.38$), risk of disclosure ($r = .47$), anticipated benefits of disclosure ($r = -.45$), and social stigma of help seeking ($r = .48$; Vogel, Wade, & Haake, 2006). The measure was not related to social desirability ($r = -.13$, $ns$). Using a regression analysis, it was found that the SSOSH uniquely predicted attitudes toward help seeking above and beyond other constructs included in the model ($\Delta R^2 = .09, p < .001$). Another regression analysis revealed that the SSOSH uniquely predicted intentions to seek counseling as well ($\Delta R^2 = .04, p < .001$). These results were verified with testing on another sample with significant prediction of attitudes ($\Delta R^2 = .06, p < .001$) and intentions ($\Delta R^2 = .05, p < .001$).

The SSOSH also showed significantly higher stigma scores for people who have not sought psychological help from those who have ($F(1,266) = 15.7, p < .01$, partial eta² = .06; Vogel, Wade, & Haake, 2006). Males also reported higher stigma scores than women ($t(266) = 3.65, p = .001$, partial eta² = .05). In a prospective study of 655 college students who took the SSOSH, those who ended up seeking counseling services had less self-stigma than those who did not seek services. ($t(33) = 2.24, p = .032$, partial eta² = .01). A discriminate analysis on this sample revealed that the measure can significantly
distinguish between help seekers and non-seeks ($\chi^2(1, 654) = 5.05, p = .025$, canonical correlation = .09). These results, based on several different samples, showed that the SSOSH had good psychometric properties and is an appropriate measure of the construct of self-stigma. Internal consistency for the SSOSH was .87.

**Intentions to seek counseling.**

The Intentions to Seek Counseling Inventory (ISCI; Cash, Begley, McCown, & Weise, 1979; see Appendix D) assesses how likely a college student is to actually seek counseling for different concerns. The measure originally asked participants to rate how effective they believed a counselor would be in dealing with a particular focus of treatment and subsequent researchers have changed the language to determine how likely participants believed they would be to seek counseling for that focus of treatment. The ISCI is a self-report instrument consisting of 15 items that are rated from 1 (very unlikely) to 6 (very likely) as to how likely the person believes they would seek counseling for different problems. Other researchers have modified the scale to include 17 items and use a 1 to 4 rating scale. An internal consistency of .84 was reported for the scale (Kelly & Achter, 1995). Kelly and Acter (1995) also found a positive correlation between help-seeking attitudes and the ISCI. Cepeda-Benito and Short (1998) factor-analyzed the scale and reported finding the hypothesized three factors that accounted for 59.2% of the total variance. These subscales contained 16 of the original 17 items (dropping one item about weight) and were called Psychological and Interpersonal Concerns (PI), Academic Concerns (A), and Drug Use Concerns (DU). Alphas for these scales were PI ($\alpha = .90$), A ($\alpha = .71$), and DU ($\alpha = .86$). The three subscales with items from Cepeda-Benito and
Short (1998) will be used for this research to assess intention to seek counseling in college students.

Internal consistencies for the face-to-face items in the current study were; PI = (.90), A = (.75), and D = (.86). The internal consistencies for the online items in the current study were: PI = (.91), A = (.76), and D = (.83). The ICIS has been used to assess intentions to seek counseling with a variety of different variables. Findings have shown negative relationships with self-stigma (Schechtman, Vogel, & Maman, 2010), perceived family norms (Barksdale & Molock, 2008), and masculinity (Robertson & Fitzgerald, 1992); positive relationships with distress (Leech, 2007) and acculturation level (Gim, Atkinson, & Whiteley, 1990); and both positive and negative relationships with self-concealment based on whether the social experience was positive or negative (Vogel & Armstrong, 2010).

For the current study, two versions of the ICIS were utilized. The same items are used in both versions, but the directions were slightly modified to indicate either an online or face-to-face condition. A brief overview of online counseling services was presented before the instructions for the online version while an overview of face-to-face counseling services was presented before the instructions for the face-to-face version. The following is the description provided for online counseling:

“Online counseling is a professional therapeutic interaction that makes use of the Internet to connect qualified mental health professionals and their clients. For example, this professional could be a psychologist, counselor, or social worker. This may take the form of interacting with a mental health professional through email or instant message chat programs or completing specific help programs online. The professional creates a relationship with you and interacts with you over the Internet to give you emotional support, mental health assistance or some other professional service. The professional provides assistance and guidance in resolving personal, social, academic/career, or psychological problems and difficulties. Services are confidential.”
The following is the description provided for face-to-face counseling:

“Face-to-face counseling is a professional therapeutic interaction that connects qualified mental health professionals and their clients together in a face-to-face setting. For example, this professional could be a psychologist, counselor, or social worker. These services typically take place in a private office or counseling center setting. The professional creates a relationship with you and interacts with you to give you emotional support, mental health assistance or some other professional service The professional provides assistance and guidance in resolving personal, social, academic/career or psychological problems and difficulties. Services are confidential.”

**Personality.**

The Five Factor model of personality was assessed with Goldberg’s (2001) International Personality Item Pool Five Factor Model Scale (IPIP-FFM; see Appendix E). Information about the development of this measure was found at http://ipip.ori.org. The IPIP is a public-domain collaboration of measures of individual differences that began in 1996 (Goldberg et al., 2006). The IPIP has been used internationally, translated into more than 25 languages, and been used in over 80 publications (Goldberg, et al., 2006). Goldberg (1992) developed the IPIP from research conducted on creating univocal factors to measure the Five Factor model of personality. The IPIP measures were created through an empirical, rational-intuitive, and psychometric construction process (Goldberg et al., 2006). For the NEO-PI-R equivalent scale, IPIP items were correlated with the NEO’s original scales with a sample that took both measures. Development of IPIP scales is described in Goldberg and colleagues (2006).

Since the NEO is a multi-factor scale, the IPIP-FFM items are organized by which scale they have the strongest correlation to and rank-ordered to ensure the IPIP-FFM items are measuring their criterion. The 50 item comparison pool with the NEO-PI-R was
selected for this study. The IPIP-FFM measure contains items that measure each of the Big 5 factors. Goldberg’s site (http://ipip.ori.org) reported good internal consistencies for these factors. Each of the five subscales contained ten items apiece with good internal consistencies (Neuroticism = .86, Extraversion = .86, Openness to Experience = .82, Agreeableness = .77, and Conscientiousness = .81; http://ipip.ori.org). Goldberg (1999) found the average correlation between the IPIP-FFM facets and the 30 facets of the NEO-PI-R ranged between .73 and .94 when unreliability was corrected. The internal consistencies for the current study were: N = (.83), E = (.87), A = (.73), O = (.77), and C = (.87).

Research on the IPIP-FFM has shown evidence for its validity in measuring the FFM of personality. Gow, Whitemand, Pattie, and Dreary (2005) found that the Conscientiousness (r = .76), Extraversion (r = .69), and Neuroticism (r = -.83) IPIP-FFM scales correlated highly, and Agreeableness (r = .49), and Openness (r = .59) correlated to a lesser degree, with their corresponding NEO-FFI constructs in a sample of 906 Scottish adults who took both measures. Socha, Cooper, and McCord (2010) examined the reliability and construct validity of this scale in a sample of 760 adults. The scales showed strong internal consistencies ranging from .76 to .86. A Confirmatory Factor Analysis was conducted, finding a good model fit to the proposed structure of the Five Factor Model ($\chi^2 = 5291.17, df=1165, p = .000; CFI = .706, SMSEA = .068, SRMR = .083$), supporting the construct validity of the IPIP-FFM scale. Support for the convergent and discriminate validity of the IPIP-FFM scale has also been found (Lim & Ployhart, 2006). Lim and Ployhart (2006) used a confirmatory factor analysis to compare the IPIP-FFM to the NEO-FFI. The result showed a good model fit between the two
measures for measuring each of the Big 5 factors of personality (RMSEA = .06, SRMR = .05, CFI = .95, and NNFI = .93). Using structural equation modeling, a significant difference between the best-fitting model and a model without trait factors was found ($\Delta \chi^2(20) = 1203.37, p < .05$), supporting the convergent validity of the IPIP-FFM. Discriminant validity was determined with a comparison between the same best-fit model and a one trait factor model. This comparison resulted in a significant difference between the models, with the best-fit model demonstrating superior fit ($\Delta \chi^2(10) = 1496.72, p < .05$).

Demographics.

Clients completed a demographics form (see Appendix F). This covered age, sex, year in college, ethnicity, sexual orientation, SES, student status, prior counseling, and comfort with online communication. The demographic data that were chosen to be collected was picked in order to try and understand the nature of the sample even though not all of this information was used in the analyses.

Statistical Analyses

Data were analyzed in the Statistical Package for the Social Sciences (SPSS) version 16.1. A scale score about familiarity with the internet (OCCS) from the demographics form was correlated with the OCAS and ICIS to answer Hypothesis 1 (comfort with online communication and technology will have a significant positive relationship with attitudes toward online counseling and intentions to seek online help).
Hypothesis 2 (self-stigma will be related to more positive attitudes toward and greater intentions to seek online counseling than face-to-face counseling) was investigated by correlating self-stigma (SSOSH) with attitudes toward online counseling and attitudes toward face-to-face counseling. Next, Fisher $r$-to-$z$ transformations were used to compare the difference between the correlation between self-stigma and attitudes toward online counseling with the correlation between self-stigma and attitudes toward face-to-face counseling. A similar procedure using Fisher $r$-to-$z$ transformation was run on all three intentions to seek counseling variables and comparing the difference between the correlations of the online and face-to-face variables.

Hypothesis 3 (GRC will be related to more positive attitudes toward and intentions to use online counseling than face-to-face counseling) was answered by correlating gender role conflict with attitudes toward online counseling and attitudes toward face-to-face counseling as well as the three intentions to seek online help variables and the three intentions to seek face-to-face help variables. Next, Fisher $r$-to-$z$ transformations were used to compare the differences between the correlation between the gender role conflict constructs and attitudes toward online counseling with the correlation between gender role conflict constructs and attitudes toward face-to-face counseling. A similar procedure using Fisher $r$-to-$z$ transformation was run on all three intentions to seek counseling variables and comparing the difference between the correlations of the online and face-to-face variables. This particular hypothesis examined only men in the sample.
Hypothesis 4, Hypothesis 5, and general research question (relationships with the Five Factor model facets of personality) were assessed by using a multiple regression of the five different personality factors from the IPIP-FFM on the OCAS and ICIS.
Introduction

The following chapter describes the analyses performed on the data collected. First, preliminary analyses that describe the sample and used to clean the date are discussed. Next, the main analyses used to answer the major hypotheses are detailed. Finally, post-hoc analyses focusing on the role of gender in the relationships are described.

Preliminary Analyses

Data initially consisted of 499 participants. Graphs of each variable and frequency tables were inspected to determine the existence of any univariate outliers in the data set based on standard scores greater than 3.29 or values outside of range limits in the response sheets (Tabachnick & Fidell, 2007). These methods revealed that there were no known outliers in the data. Next, frequency tables and the general data set were inspected to determine the nature of missing data points. Four participants were missing the majority of their data and these cases were deleted from the analysis (0.8% of participants). An additional respondent who answered all the questions with the same
The manipulation check question was examined to determine if respondents were accurately understanding the online or face-to-face intentions to seek counseling condition that they were randomized into. Results showed that participants chose the correct condition, although some participants selected both online and face-to-face options \((n = 42, 8.5\%)\), presumably because these participants had answered the attitudes questions which involved both face-to-face and online domains. Next, frequency tables were inspected to determine if any individual question produced a problematic amount of missing data. These tables revealed that no item had more than 5% of its data missing, while only one summed scale had more than 5% of its scores missing (OCAS-f). Given these results it was decided to treat the missing data as Missing at Random according to considerations described in Tabachnik and Fidell (2007). Based on criteria from Tabachnik and Fidell (2007) it was determined to not use any substitution procedure to estimate missing data in this sample. Analyses were thus run without participants who were missing data on items.

Next, correlation tables and scatterplots were examined to determine if there was multicollinearity among the variables. The highest correlation was .69 between the ICIS interpersonal and academic subscales. The majority of correlations fell below .40. Since all correlations fell below .70, multicollinearity was not considered an issue for this data set (Tabachnik & Fidell, 2007). Frequencies were explored to determine if the data possessed any problematic skewness or kurtosis properties (see Table 1). According to Tabachnik and Fidell (2007) the level of skew is less impactful than the size and
appearance of the distribution for large samples. Since this is a large sample of data, SPSS Normal and Detrended PLOTS were calculated to visually inspect the data for skewness and kurtosis issues. Visual inspection determined that while the variables were not perfectly normal, their levels of skewness and kurtosis were within acceptable ranges and would not require transformation of the variables.

Finally, Mahalanobis distances were examined to determine the existence of any multivariate outliers. The Mahalanobis statistics was calculated according to procedures from (Tabachnik & Fidell, 2007). First, separate linear regressions with gender as a selection variable were run to calculate Mahalanobis distances for both men and women. Mahalanobis distances were calculated both with replacing missing data and without replacing missing cases. Next, Mahalanobis probabilities were calculated in SPSS to determine any problematic distances using a $\chi^2$ probability distribution. The calculations without replacing missing data revealed no distances below $p = .001$. The analysis with missing data replaced revealed one case where $p < .001$. The means and standard deviation for this participant were compared to the averages for the data set to determine if this was truly a multivariate outlier, and it was determined it was not and was thus included in the final sample.

The remaining data set consisted of 494 participants, 297 females and 197 males (no students classified themselves as transgender). Due to technological issues, a question regarding age of participants was not recorded, so the sample is described based on a question about year in school. The majority of the sample were non-first year students (80.7%). There were 95 first-year students (19.2%), 108 second-year students (21.9%), 95 third-years (19.2%), 86 fourth-years (17.4%), 56 fifth-years (11.3%), 13 sixth year or
more (2.6%), and 41 graduate students (8.3%). The majority of the sample, 417 students, described themselves as White/Caucasian (84.4%). The remainder consisted of 47 African-American (9.5%), seven Latino (1.4%), four Asian (0.8%), two Native American (0.4%), nine Biracial (1.8%), six Multiracial (1.2%) and nine other ethnicity students (1.8%).

The majority of students, 436, were full-time (88.3%), while 58 (11.7%) were part-time. Two hundred thirty-two students (47%) reported receiving mental health services in the past, while 253 students (51%) did not. Few participants ($n = 6$) reported receiving online mental health services (1.2%) while 20 students reported participating in online support groups (4.0%). One hundred thirty-seven students (27.7%) reported participating in internet forums or message boards generally.

The sample had more favorable attitudes toward face-to-face counseling ($M = 42.65, SD = 11.21$) than it did for attitudes toward online counseling ($M = 34.50, SD = 10.29; t = 11.73, p < .01$). The sample showed similar levels of intentions to seek online help for interpersonal problems ($M = 29.71, SD = 11.26$) as it did for intentions to seek face-to-face counseling for interpersonal problems ($M = 30.17, SD = 11.24; t = .63, ns$). The sample also showed similar levels of intentions to seek online help for academic problems ($M = 13.99, SD = 5.09$) as it did for intentions to seek face-to-face counseling for academic problems ($M = 13.45, SD = 5.04; t = 1.64, ns$). The sample showed statistically different levels of intentions to seek online help for drug problems ($M = 5.94, SD = 3.30$) compared to intentions to seek face-to-face counseling for drug problems ($M = 6.94, SD = 3.67; t = 4.41, p < .01$)
Pearson chi-square analyses were run to examine if there were any differences between the online and face-to-face samples based on demographic variables. There were non-significant differences between the groups on Gender, $\chi^2(1) = .18, ns$, year in school, $\chi^2(5) = 6.05, ns$, past experience receiving online mental health services, $\chi^2(1) = 1.98, ns$, participation in online support groups, $\chi^2(1) = .58, ns$, or participation on internet forums/message boards, $\chi^2(1) = .25, ns$. The groups did differ on previous mental health experiences, with the face-to-face sample having more participants with past mental health experience, $\chi^2(1) = 6.38, p < .05$, although there was a non-significant difference between groups on receiving face-to-face counseling in the past, $\chi^2(1,310) = .05, ns$. Means, standard deviations, skewness and kurtosis values, and Cronbach’s alpha reliability estimates can be found in Table 1.

Main Analyses

**Hypothesis 1.**

To test Hypothesis 1, which stated there would be a significant positive relationship between comfort with online communication and both attitudes toward online counseling and online intentions to seek counseling, scores on the online communication comfort scale (OCCS) were correlated with scores on the online and face-to-face intentions measures (ICIS-f and ICIS-o) and attitude measures (OCAS-f and OCAS-o). Positive relationships indicated that greater comfort with online communication was related to more positive attitudes and intentions. These correlations
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Note: SPC: Success, Power, Competition, RE: Restrictive Emotionality, RABBMM: Restrictive Affectionate Behavior Between Men, CBWFL: Conflict between Work and Family Life, OCAS-o: Online Counseling Attitudes Scale-online version, OCAS-f: Online Counseling Attitudes Scale-face-to-face version, ICISO-i Intentions to Seek Counseling Scale-online interpersonal, ICISO-a Intentions to Seek Counseling Scale-online academic, ICISO-d Intentions to Seek Counseling Scale-online drug, ICISF-i Intentions to Seek Counseling Scale-face-to-face interpersonal, ICISF-a Intentions to Seek Counseling Scale-face-to-face academic, ICISF-d Intentions to Seek Counseling Scale-face-to-face drug, SSOSH Self-Stigma of Seeking Help Scale, OCCS Online Communication Comfort Scale, N Neuroticism, E Extraversion, O Openness, A Agreeableness, C Conscientiousness
are found in Table 2. A significant relationship was found between communication comfort and attitudes toward online counseling ($r = .23, p < .01$). No significant relationship existed between online communication comfort and attitudes toward face-to-face counseling ($r = .03, ns$). Communication comfort was not related to face-to-face intentions to use interpersonal ($r = -.05, ns$), academic ($r = -.03, ns$), or drug services ($r = -.05, ns$). Communication comfort was significantly related to intentions to seek online counseling for interpersonal problems ($r = .15, p < .05$), but not related to academic ($r = .09, ns$), or drug problems ($r = .04, ns$). Thus, results partially supported the hypothesis of online communication comfort being related to attitudes toward online counseling and intentions to seek online services.

**Hypothesis 2.**

Hypothesis 2 predicted that self-stigma would be significantly positively related to attitudes toward and greater intentions to use online counseling when compared to face-to-face counseling. First, correlations were examined between self-stigma and both online and face-to-face attitudes toward counseling as well as intentions to seek online or face-to-face help for interpersonal, academic, and drug problems (Table 3). A negative relationship meant that greater amounts of self-stigma were related to lower attitudes or less intention to seek counseling. Self-stigma had significant relationships with both attitudes toward online counseling ($r = -.20, p < .01$) and attitudes toward face-to-face counseling ($r = -.45, p < .01$). Self-stigma also showed significant relationships to face-to-face intentions to seek help for interpersonal ($r = -.42, p < .01$), academic ($r = -.21, p < .01$), and drug problems ($r = -.31, p < .01$). Self-stigma was not related at to online
Table 2 Correlations between Online Communication Comfort, Attitudes, and Intentions to Seek Help

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Note. *\( p < .05 \) †\( p < .01 \), NA: No correlation, --- Repeated correlation, OCCS: Online Communication Comfort Scale, OCAS-o: Online Counseling Attitudes Scale-online version, OCAS-f: Online Counseling Attitudes Scale-face-to-face version, ICISo-i Intentions to Seek Counseling Scale-online interpersonal, ICISo-a Intentions to Seek Counseling Scale-online academic, ICISo-d Intentions to Seek Counseling Scale-online drug, ICISf-i Intentions to Seek Counseling Scale-face-to-face interpersonal, ICISf-a Intentions to Seek Counseling Scale-face-to-face academic, ICISf-d Intentions to Seek Counseling Scale-face-to-face drug.
intentions for interpersonal ($r = -.09, ns$), academic ($r = -.04, ns$), or drug problems ($r = -.04, ns$).

Next, these correlations for attitudes toward face-to-face and online counseling with the self-stigma dimension were compared to one another using the Fischer $r$-to-$z$ transformation comparison statistic to determine if there were significant differences between the correlations. Online and attitudes toward face-to-face counseling had significantly different relationships with self-stigma ($z = 4.12, p < .01$) with attitudes toward face-to-face counseling showing a stronger negative relationship.

Next, the intentions to seek help relationships were compared using three separate Fisher's $r$-to-$z$ transformations. First, the correlations for intentions to seek help for interpersonal problems were compared. Online and face-to-face interpersonal intentions had significantly different relationships with self-stigma ($z = -3.8, p < .01$) with face-to-face intentions again showing a stronger negative relationship. Next, the correlations for academic problems were compared. Online and face-to-face intentions to seek counseling for academic concerns had significantly different relationships with self-stigma ($z = -1.8, p < .05$) with face-to-face academic intentions showing a stronger negative relationship. Finally, the correlations for drug problems were compared. Online and face-to-face drug intentions had significantly different relationships with self-stigma ($z = -2.97, p < .05$) with face-to-face drug intentions showing a stronger negative relationship.

Results of these analyses partially supported hypothesis two. Self-stigma showed a significant negative relationship with attitudes toward online counseling and no relationship to the three online intentions variables. The relationship of self-stigma to
Table 3 Correlations between Self-Stigma, Attitudes, and Intentions to Seek Help

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Note. *p < .05 †p < .05, NA: No correlation, --- Repeated correlation, SSOSH: Self-Stigma of Seeking Help Scale, OCAS-o: Online Counseling Attitudes Scale-online version, OCAS-f: Online Counseling Attitudes Scale-face-to-face version, ICISO-i Intentions to Seek Counseling Scale-online interpersonal, ICISO-a Intentions to Seek Counseling Scale-online academic, ICISO-d Intentions to Seek Counseling Scale-online drug, ICISf-i Intentions to Seek Counseling Scale-face-to-face interpersonal, ICISf-a Intentions to Seek Counseling Scale-face-to-face academic, ICISf-d Intentions to Seek Counseling Scale-face-to-face drug
attitudes toward face-to-face counseling was significantly stronger than to attitudes toward online counseling. This same pattern occurred for all three intentions to seek counseling problems: self-stigma showed a significantly stronger negative relationship to face-to-face intentions for all three variables than it did to online intentions for these variables.

**Hypothesis 3.**

Hypothesis 3 predicted that gender role conflict would have a significantly more positive relationship with attitudes toward online counseling and intentions to seek help than attitudes toward face-to-face counseling and intentions. These analyses were carried out only with the males in the sample \( (n = 197) \). In order to examine this hypothesis, first correlations were examined between the four Gender Role Conflict constructs: Success, Power, Competition (SPC), Restrictive Emotionality (RE), Restrictive Affectionate Behavior Between Men (RABBM), and Conflicts Between Work and Family Life (CBWFL) and attitudes toward online counseling (Table 4). Only RE was significantly related to attitudes toward online counseling \( (r = .22, p < .01) \). SPC, \( (r = .10, ns) \), RABBM \( (r = .11, ns) \), and CBWFL \( (r = -.02, ns) \) were not significantly related at \( p < .05 \). Next, correlations were examined between the four GRCS variables and attitudes toward face-to-face counseling. Significant relationships were found with Restrictive Emotionality \( (r = .27, p < .01) \) and Restrictive Affectionate Behavior \( (r = .17, p < .05) \). There were no significant relationships with SPC \( (r = .02, ns) \) and CBWFL \( (r = .01, ns) \).

These correlations for online and attitudes toward face-to-face counseling on these GRCS dimensions were then compared to one another using the Fischer \( r \)-to-\( z \)
transformation to determine if there were significant differences between the groups. Online and attitudes toward face-to-face counseling did not have significantly different relationships with Restrictive Emotionality ($z = -0.5, ns$) and Restrictive Affectionate Behavior ($z = -0.57, ns$) at $p < .05$. Comparisons for SPC and CBWFL were not conducted since they did not have significant relationships.

Correlations were then examined for GRCS variables and intentions to seek online and face-to-face counseling (Table 4). First, correlations were examined between the four GRCS variables and online interpersonal intentions. There were no significant relationships at $p < .05$ between any of the GRCS variables and online interpersonal intentions. These relationships were: SPC ($r = .07, ns$), RE ($r = -.09, ns$), RABBM ($r = -.13, ns$), and CBWFL ($r = .06, ns$). Next, correlations were examined between the four GRCS variables and attitudes toward face-to-face counseling. There again were no significant relationships at $p < .05$ between any of the GRCS variables and interpersonal face-to-face intentions. These relationships were: SPC ($r = .05, ns$), RE ($r = .08, ns$), RABBM ($r = .11, ns$), and CBWFL ($r = -.08, ns$). Due to the lack of significant relationships, no further analyses were done on this dimension.

Next correlations were examined between the four GRCS variables and intentions to seek online help for academic problems. No significant relationships were found at $p < .05$. There were non-significant relationships for SPC ($r = .17, ns$), RE ($r = .09, ns$), RABBM ($r = -.01, ns$), and CBWFL ($r = -.07, ns$). Then correlations were examined between the four GRCS variables and intentions to seek face-to-face help for academic problems. Only Success, Power and Competition (SPC) was significantly related to online academic intentions ($r = -.21, p < .05$).
### Table 4 Correlations between Gender Role Conflict Scale Constructs, Attitudes, and Intentions Variables

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Note. *\(p < .05\), †\(p < .01\), NA: No correlation, --- Repeated correlation, SPC: Success, Power, Competition, RE: Restrictive Emotionality, RABB: Restrictive Affectionate Behavior Between Men, CBWFL: Conflict between Work and Family Life, OCAS-o: Online Counseling Attitudes Scale-online version, OCAS-f: Online Counseling Attitudes Scale-face-to-face version, ICISo-i: Intentions to Seek Counseling Scale-online interpersonal, ICISo-a: Intentions to Seek Counseling Scale-online academic, ICISo-d: Intentions to Seek Counseling Scale-online drug, ICISf-i: Intentions to Seek Counseling Scale-face-to-face interpersonal, ICISf-a: Intentions to Seek Counseling Scale-face-to-face academic, ICISf-d: Intentions to Seek Counseling Scale-face-to-face drug.
There were no significant relationships at $p < .05$ with RE ($r = -.02, ns$), RABBM ($r = - .12, ns$), and CBWFL ($r = .06, ns$). The significant face-to-face and non-significant online SPC correlations were compared using Fisher's $r$-to-$z$ transformation. Face-to-face academic intentions was significantly more strongly related to SPC than was online intentions ($z = 2.62, p < .01$).

Then, correlations were examined between the four GRCS variables and intentions to seek online help for drug problems. A significant relationship was found with Conflicts Between Work and Family Life (CBWL, $r = .23, p < .05$). The relationships were non-significant at $p < .05$ for SPC ($r = .11, ns$), RE ($r = .09, ns$), and RABBM ($r = .06, ns$). Next, correlations were examined between the four GRCS variables and intentions to seek face-to-face help for drug problems. There was a significant relationship for Restrictive Affectionate Behavior Between Men (RABBM, $r = .22, p < .05$). The relationships were non-significant for SPC ($r = .12, ns$), RE ($r = -.01, ns$), and CBWFL ($r = -.01, ns$). The correlations were then compared using Fisher's $r$-to-$z$ transformation. Online and attitudes toward face-to-face counseling did not have significantly different relationships with RABBM ($z = 1.16, ns$) nor CBWL ($z = 1.64, p = .05$).

Unexpected findings were discovered for hypothesis three, which was weakly supported. The gender role constructs of Restrictive Emotionality (RE) had a significant positive relationship to attitudes toward online counseling, supporting the hypothesis. Restrictive Affectionate Behavior Between Men (RABBM) and RE were significantly positively related to attitudes toward face-to-face counseling, in opposite directions than expected. No differences were found for attitudes toward online or face-to-face
counseling on these GRCS dimensions. None of the GRCS dimensions showed a significant relationship with online or face-to-face interpersonal intentions.

An expected finding showed that Success, Power, Competition (SPC) was negatively related to intentions to seek face-to-face help for academic problems while it was not related to intentions to seek online help for academic problems. When these relationships were statistically compared to each other, it was found that they were significantly different. The gender role conflict construct of Conflict Between Work and Family Life was significantly positively related to intentions to seek online help for drug problems while RABBM was significantly positively related to intentions to seek face-to-face help. When compared to each other, there were no significant differences between these correlations.

**Hypotheses 4 and 5.**

Hypotheses 4 and 5 were tested using multiple regressions of the five personality facet scores from the IPIP-FFM on the attitudes and intentions measures. Hypothesis 4 predicted that Openness would be positively related to attitudes toward online counseling and intentions to seek help. Hypothesis 5 predicted that Extraversion would be positively related to attitudes toward online counseling and intentions to seek help. In addition, a general research question was explored about the relationship of the other three Big 5 personality constructs (Agreeableness, Neuroticism, and Conscientiousness) to attitudes toward online counseling and intentions.

A multiple regression of personality traits on attitudes toward online counseling was significant ($R^2 = .05$, $p < .01$; Table 5). There were significant relationships with
Neuroticism ($\beta = .12, p < .05$) and Openness ($\beta = .15, p < .01$). The relationships with Extraversion ($\beta = .12, ns$), Agreeableness ($\beta = .08, ns$) and Conscientiousness ($\beta = -.07, ns$) were non-significant.

Another set of multiple regressions analyzed the relationship between personality traits and each of the three different online help-seeking intentions. For intentions to seek online help for interpersonal issues, the regression was significant ($R^2 = .07, p < .01$). Interpersonal intentions was significantly related to Openness ($\beta = .15, p < .05$) and Agreeableness ($\beta = .16, p < .05$). The relationships with Extraversion ($\beta = -.07, ns$), ($\beta = .15, ns$) and Conscientiousness ($\beta = -.46, ns$) were non-significant.

The regression for intentions to seek help online for academic problems was also significant ($R^2 = .06, p < .05$; Table 5). There was a significant relationship with Openness ($\beta = .18, p < .05$). The relationships with Neuroticism ($\beta = .01, ns$), Extraversion ($\beta = .01, ns$), Agreeableness ($\beta = .13, ns$), and Conscientiousness ($\beta = -.03, ns$) were non-significant.

The regression for intentions to seek online help for drug issues was not significant ($R^2 = .03, ns$). There was a significant relationship with Agreeableness ($\beta = .18, p < .05$). The relationships with Neuroticism ($\beta = .01, ns$), Extraversion ($\beta = .02, ns$), Openness ($\beta = .02, ns$), and Conscientiousness ($\beta = -.05, ns$) were non-significant. Overall, Hypothesis 4 was generally supported, except for intentions to seek help online for drug issues. Hypothesis 4 (relationships with Openness) revealed that for the entire sample, Openness was significantly related to attitudes toward online counseling as well as intentions to seek online counseling for interpersonal and academic problems. Openness was not related to intentions to seek online help for drug problems though.
Table 5 Summary of Regressions for Online Variables

<table>
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<th>Predictor</th>
<th>OCAS-o</th>
<th>ISCI-o-i</th>
<th>ISCI-o-a</th>
<th>ISCI-o-d</th>
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<td>SE B</td>
<td>β</td>
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<td>0.09</td>
<td>0.12*</td>
<td>0.00</td>
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<tr>
<td>E</td>
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<td>0.08</td>
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<tr>
<td>O</td>
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<td>0.09</td>
<td>0.15†</td>
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<tr>
<td>A</td>
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<td>0.08</td>
<td>0.33</td>
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<tr>
<td>C</td>
<td>-0.11</td>
<td>0.09</td>
<td>-0.07</td>
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Note. *p < .05, †p < .01. N-Neuroticism, E-Extraversion, O-Openness, A-Agreeableness, C-Conscientiousness OCAS-o: Online Counseling Attitudes Scale-online version, ICISo-i Intentions to Seek Counseling Scale-online interpersonal, ICISo-a Intentions to Seek Counseling Scale-online academic, ICISo-d Intentions to Seek Counseling Scale-online drug
contrary to the hypothesis. Hypothesis 5 (relationships to Extraversion) was not
supported at all in these data. Extraversion was not related to attitudes toward online
counseling or intentions to seek online help for any of the three variables. The other three
personality constructs were examined as well in a more general research question. For the
entire sample, a significant relationship was found between Agreeableness and intentions
to seek online help for interpersonal and drug problems. The construct of Neuroticism
was significantly related to attitudes toward online counseling.

Post-hoc Analyses

A set of MANOVAs were conducted in order to determine if differences on any
of the demographic variables would have a differential impact on the dependent variables.
The first MANOVA with intentions to seek online help variables for gender was
significant \((F(12,173) = 3.22, p < .01)\). Follow-up ANOVAs revealed significant
differences on gender for Neuroticism \((F(1,173) = 4.4, p < .05)\) and Agreeableness \((F
(1,173) = 6.15, p < .05)\), with women having higher mean scores then men on both.

The second MANOVA with intentions to seek face-to-face help variables for
gender was significant \((F(12,177) = 2.49, p < .01)\). Follow-up ANOVAs revealed
significant differences on gender for Neuroticism \((F(1,177) = 9.36, p < .01)\), with women
again having higher mean scores than men.

The next set of MANOVAs examined the impact of previous mental health
services. The first MANOVA for intentions to seek face-to-face help variables was
significant \((F(12,173) = 3.90, p < .01)\). Follow-up ANOVAs revealed significant
differences for Online Communication Comfort \((F(1,173) = 7.22, p < .01)\), Self-stigma
(F(1,173) = 6.17, p < .05), Neuroticism (F(1,173) = 6.51, p < .05), Openness (F(1,173) = 7.34, p < .01), Intentions to seek face-to-face counseling for interpersonal problems (F(1,173) = 9.71, p < .01) and Intentions to seek face-to-face help for academic problems (F(1,173) = 4.77, p < .05). People with previous mental health experience had higher mean scores for Online Communication Comfort, Neuroticism, Openness, Intentions to seek face-to-face help for interpersonal problems, and Intentions to seek face-to-face help for academic problems. People with previous mental health experience had lower mean scores for Self-stigma.

The first MANOVA for intentions to seek online help variables was significant (F(12,171) = 3.99, p < .01). Follow-up ANOVAs revealed significant differences for Self-stigma (F(1,171) = 14.70, p < .01), Neuroticism (F(1,171) = 6.35, p < .01), Openness (F(1,171) = 9.48, p < .01), and Attitudes toward face-to-face counseling (F(1,171) = 16.78, p < .01). People with previous mental health experience had higher mean scores for Neuroticism, Openness, and Attitudes toward face-to-face counseling and lower mean scores for Self-stigma.

The next set of MANOVAs examined the impact of year in college. The first MANOVA for intentions to seek online help variables was not significant (F(60, 654) = 1.31, ns). The next MANOVA for intentions to seek face-to-face help variables was also not significant (F(60, 813.87) = 1.28, ns).

Two MANOVAs were conducted to examine differences between males and females for attitudes and intentions. The first MANOVA examined the three online intentions measures, attitudes toward online counseling and self-stigma. There was no statistically significant difference between genders on these measures (F(4, 218) = 1.13, p
= .34; Wilk's $\lambda = 0.96$, partial $\eta^2 = .03$). These results should be examined with caution though since the Box’s $M$ statistic was borderline significant at $p = .001$; indicating there may be problematic homogeneity in the variances. Follow-up ANOVAs revealed that there was a statistical difference for self-stigma ($F(1, 222) = 3.97$, $p < .05$; partial $\eta^2 = .02$), with males demonstrating significantly higher self-stigma scores.

The second MANOVA examined the three face-to-face intentions measures, attitudes toward face-to-face counseling and self-stigma. Again, there was no statistically significant difference between genders on these measures, ($F(4, 221) = 1.75$, $p = .12$; Wilk's $\lambda = 0.96$, partial $\eta^2 = .04$). Follow-up ANOVAs revealed that there was a statistical difference for self-stigma ($F(1, 225) = 6.01$, $p < .05$; partial $\eta^2 = .03$), with males demonstrating significantly higher self-stigma scores.

**Hypothesis 1 Post-Hoc.**

Additional analyses were conducted to explore any differences based on gender with online communication comfort. Relationships for males and females can be seen in Table 6. For women, the pattern of relationships remained the same. A significant relationship remained between online communication comfort and attitudes toward online counseling ($r = .26$, $p < .01$). There also remained no significant relationship between online communication comfort and attitudes toward face-to-face counseling ($r = .08$, $ns$). Additionally, communication comfort was not related to face-to-face intentions to use interpersonal ($r = .01$, $ns$), academic ($r = -.04$, $ns$), or drug services ($r = -.07$, $ns$). Finally, communication comfort was significantly related to intentions to use online interpersonal services ($r = .20$, $p < .01$), but not academic ($r = .09$, $ns$), or drug ($r$
For men, a somewhat different pattern of relationships emerged (Table 6). There was a non-significant relationship between communication comfort and attitudes toward online counseling ($r = .12, ns$), while the relationship to attitudes toward face-to-face counseling remained non-significant ($r = -.07, ns$). Communication comfort was not related at $p < .05$ to intentions to seek face-to-face help for either interpersonal ($r = -.20, ns$) or academic ($r = -.03, ns$) problems, but it showed a significant relationship with drug problems ($r = -.31, p < .01$). Communication comfort was not related to intentions to seek online help for interpersonal services for men ($r = .06, ns$) in addition to not having a relationship with academic ($r = .06, ns$), and drug ($r = -.01, ns$) problems.

**Hypotheses 2 Post-Hoc.**

Analyses were run again on the self-stigma dimension, separating the file by gender. Relationships for males and females are shown in Table 7. For attitudes toward counseling, similar significant relationships were found. Women had significant relationships with self-stigma and attitudes toward online counseling ($r = -.17, p < .05$) and attitudes toward face-to-face counseling ($r = -.42, p < .01$). The difference between these correlations was significant ($z = 3.32, p < .01$), with attitudes toward face-to-face counseling showing a stronger negative relationship. Men also had significant relationships with self-stigma and attitudes toward online counseling ($r = -.28, p < .01$) and attitudes toward face-to-face counseling ($r = -.49, p < .01$). The difference between these correlations was also significant ($z = 2.25, p < .01$), with self-stigma and attitudes toward face-to-face counseling showing a stronger negative relationship.
Table 6 Correlations between Online Communication Comfort, Attitudes, and Intentions to Seek Help for Males and Females

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Note. Females below diagonal, Males above *p < .05 †p < .01, NA: No correlation, OCCS: Online Communication Comfort Scale, OCAS-o: Online Counseling Attitudes Scale-online version, OCAS-f: Online Counseling Attitudes Scale-face-to-face version, ICISO-i Intentions to Seek Counseling Scale-online interpersonal, ICISO-a Intentions to Seek Counseling Scale-online academic, ICISO-d Intentions to Seek Counseling Scale-online drug, ICISF-i Intentions to Seek Counseling Scale-face-to-face interpersonal, ICISF-a Intentions to Seek Counseling Scale-face-to-face academic, ICISF-d Intentions to Seek Counseling Scale-face-to-face drug
When analyzing intentions to seek help for interpersonal problems by gender, women showed a significant negative relationship with self-stigma and intentions to seek face-to-face help for interpersonal problems \((r = -0.44, p < .01)\), the relationship with intentions to seek online help for interpersonal problems was non-significant \((r = -0.17, ns)\). The difference between these correlations was significant \((z = 2.54, p < .01)\), with intentions to seek face-to-face help showing a stronger negative relationship. Men also showed a significant negative relationship with self-stigma and intentions to seek face-to-face help \((r = -0.39, p < .01)\), the relationship with intentions to seek online help was non-significant \((r = -0.02, ns)\). The difference between these correlations was significant \((z = -2.82, p < .01)\), with self-stigma and intentions to seek face-to-face help for interpersonal problems showing a stronger negative relationship.

When analyzing intentions to seek help for academic problems by gender, women showed a significant negative relationship with self-stigma and intentions to seek face-to-face help \((r = -0.25, p < .01)\), the relationship with intentions to seek online help was non-significant \((r = -0.03, ns)\). The difference between these correlations was significant \((z = -1.91, p < .05)\), with intentions to seek face-to-face help for academic problems showing a more negative relationship. A different pattern existed for men. Men did not show a significant negative relationship with self-stigma and intentions to seek face-to-face help for academic problems \((r = -0.12, ns)\), or intentions to seek online help for academic problems \((r = -0.05, ns)\). The difference between these correlations was non-significant \((z = -0.43, ns)\).
Table 7 Correlations between Self-Stigma, Attitudes, and Intentions to Seek Help for Males and Females

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Note. Males above diagonal, females below *p < .05 †p < .01, NA: No correlation, SSOSH: Self-Stigma of Seeking Help Scale, OCAS-o: Online Counseling Attitudes Scale-online version, OCAS-f: Online Counseling Attitudes Scale-face-to-face version, ICISo-i: Intentions to Seek Counseling Scale-online interpersonal, ICISo-a: Intentions to Seek Counseling Scale-online academic, ICISo-d: Intentions to Seek Counseling Scale-online drug, ICISf-i: Intentions to Seek Counseling Scale-face-to-face interpersonal, ICISf-a: Intentions to Seek Counseling Scale-face-to-face academic, ICISf-d: Intentions to Seek Counseling Scale-face-to-face drug.
When analyzing intentions to seek help for drug problems by gender, women showed a significant negative relationship with self-stigma and intentions to seek face-to-face help \((r = -.27, p < .01)\), the relationship with intentions to seek online help was non-significant \((r = -.06, ns)\). The difference between these correlations was significant \((z = -1.84, p < .05)\), with intentions to seek face-to-face help for drug problems showing a more negative relationship. Men also showed a significant negative relationship with self-stigma and intentions to seek face-to-face help for drug problems \((r = -.37, p < .01)\), while the relationship with intentions to seek online help for drug problems was non-significant \((r = -.02, ns)\). The difference between these correlations was significant \((z = -2.42, p < .01)\), with self-stigma and intentions to seek face-to-face help for drug problems showing a stronger negative relationship.

Overall, the preliminary findings generally held when examined by gender. Women showed the same pattern of relationships as the general sample while men did not have a significant relationship with intentions to seek face-to-face help for academic problems or a significant difference when compared to intentions to seek online help.

**Hypotheses 4 and 5 Post-Hoc.**

Analyses were run to explore relationships amongst personality, attitudes toward online counseling, and intentions to seek online help due to gender differences in the hypothesized relationships (Tables 8 and 9). First, multiple regressions were conducted regressing personality onto attitudes toward online counseling separately for men and women. The regression for the female sample on attitudes toward online counseling was significant \((R^2 = .05, p < .05)\). There was a significant relationship to Openness \((\beta = .17,\)
The regression for men on attitudes toward online counseling was also significant ($R^2 = .07, p < .05$). There was a significant relationship to Neuroticism ($\beta = .22, p < .05$).

Another set of regressions was used to examine gender differences in the relationship of personality to intentions to seek online help. First, intentions to seek online help for interpersonal problems were analyzed. The regression for females was significant ($R^2 = .14, p < .01$). There was a significant relationship to Openness ($\beta = .29, p < .01$). The regression for males was also significant ($R^2 = .16, p < .05$). There was a significant relationship to Agreeableness ($\beta = .44, p < .01$) and Conscientiousness ($\beta = -.30, p < .05$). Next, intentions to seek online help for academic problems were analyzed separately for gender. The regression for females was not significant ($R^2 = .08, p = .06$), although there was a significant relationship to Openness ($\beta = .20, p < .03$). The regression for males was not significant ($R^2 = .09, ns$). Finally intentions to seek online help for drug problems was examined. The regression for females was not significant ($R^2 = .03, ns$). The regression for males was significant ($R^2 = .15, p < .05$), with a significant relationship to Agreeableness ($\beta = .41, p < .01$).

These post-hoc analyses explored what relationships remained when analyzed by gender. Results for Openness revealed that for women, a similar pattern remained: Openness was significantly related to attitudes toward online counseling and intentions to seek online help for interpersonal and academic problems; it was not related to intentions
Table 8 Summary of Regressions for Online Variables for Males

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Note. *p < .05, †p < .01. N-Neuroticism, E-Extraversion, O-Openness, A-Agreeableness, C- Conscientiousness OCAS-a: Online Counseling Attitudes Scale-online version, ICISo-i Intentions to Seek Counseling Scale-online interpersonal, ICISo-a Intentions to Seek Counseling Scale-online academic, ICISo-d Intentions to Seek Counseling Scale-online drug
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</table>

Note. *p < .05, †p < .01. N-Neuroticism, E-Extraversion, O-Openness, A-Agreeableness, C-Conscientiousness, OCAS-o Online Counseling Attitudes Scale-online version, ICISo-i Intentions to Seek Counseling Scale-online interpersonal, ICISo-a Intentions to Seek Counseling Scale-online academic, ICISo-d Intentions to Seek Counseling Scale-online drug.
to seek online help for drug problems. For men, Openness was not related to attitudes toward online counseling or any of the three variables for intentions to seek help. Intentions to seek online help was though related to other personality facets. When analyzed by gender, Extraversion was again not related to attitudes toward online counseling or intentions to seek online help for any of the three variables. For the other three personality constructs, none of these three personality variables was related to attitudes or intentions for women. For men, there were significant relationships of Neuroticism to attitudes toward online counseling, Conscientiousness to intentions to seek online help for interpersonal problems, and Agreeableness to intentions to seek online help for both interpersonal and drug problems.

The next chapter discusses these results. Some of the hypotheses were supported, whereas other were not. These results have implications for future research in this area as well as implications for practice.
CHAPTER V

DISCUSSION

Introduction

This chapter presents a discussion of this dissertation’s results and its implications. First, the results for each of the main individual difference variables are discussed. Then trends across all the results are considered. Next, implications for research and practice are considered. Limitations of the current research are discussed.

Overview.

The purpose of this study was to explore relationships among the individual difference variables of self-stigma, gender role conflict, and personality with attitudes and intentions to seek online counseling in the college student population. This study sought to answer questions asked by authors such as Griffiths (2001) and Rochlen, Zack, and Speyer (2004) about the role of individual differences in perceptions and intentions to use online counseling. It was hypothesized that comfort with online communication would be positively associated with attitudes toward online counseling and intentions to seek online counseling. It was also hypothesized that the personality constructs of Openness and Extraversion would be positively associated with attitudes toward online
counseling and intentions to seek online counseling. It was also hypothesized that self-stigma would have a more positive relationship with attitudes toward online counseling and intentions to seek online help than it would with the face-to-face measures. Finally, for men, it was hypothesized that gender role conflict would have a more positive relationship to attitudes toward online counseling and intentions to seek online help than it would to face-to-face options.

A sample of 499 Midwestern college students was collected from a university’s human subjects pool. These participants completed scales assessing their personality, comfort with online communication, attitudes toward both online and face-to-face counseling, their intention to seek counseling, and men were assessed for gender role conflict. Hypotheses one was tested with correlations between online communication comfort and attitudes and intentions. Hypotheses two and three were tested by first finding the correlation coefficient between either self-stigma or gender role conflict constructs and attitudes and intentions. The correlation coefficients for face-to-face and online attitudes and intentions were then compared to one another with Fischer r-to-z transformations to determine if face-to-face or online had different relationships with either self-stigma or gender role conflict. Finally, hypotheses four and five were tested by regressing the Five Factor personality constructs onto attitudes and intentions. First, each of the results of the tested are discussed.
Hypotheses

**Online Communication Comfort.**

Results partially supported the hypothesis that comfort with online communication would be related positively and significantly to attitudes toward online counseling and intentions to seek online help. Communication comfort was related to attitudes toward online counseling and intentions to seek online help for interpersonal problems, but was not related to academic or drug problems. Since this was a correlation it is not known whether increased comfort communicating online leads to more positive attitudes toward online counseling, if positive attitudes toward online counseling lead to more comfort communicating online, or if a third variable is at work. For the intentions aspect of these findings, it may be that the nature of interpersonal problems requires more communication so this positive relationship was found, whereas for the other two categories of services, comfort communicating online does not matter. It could also be that people who are comfortable communicating online are more likely to be willing to seek help for interpersonal problems due to their comfort with communicating with others in general or their experience communicating in various online mediums (email, instant messages, social media, etc.). Comfort with communicating online was not related to attitudes toward face-to-face counseling or intentions to seek help for any of the three categories, an expected result given these were face-to-face services that would not involve online communication.

In post-hoc analyses, when the data were analyzed separately for gender, the same patterns held for women. For men, a different pattern occurred. Comfort with online
communication was not related to attitudes toward online counseling or intentions to seek online help for any of the three categories for men. Thus, how comfortable men feel communicating online is not related to their attitudes about help online or their intentions to seek it. Since men have been shown to have more negative attitudes toward mental health services and are less likely to seek these services (Addis & Mahalik, 2003), it may be that even online communication comfort does not impact the relationship to attitudes or intentions.

For the face-to-face counseling measures, online communication comfort again did not relate to attitudes toward face-to-face counseling or intentions to seek face-to-face help for interpersonal or academic categories. An interesting result showed that online communication comfort for men was significantly and negatively related to intentions to seek face-to-face help for drug problems. This result indicates that men who are more comfortable communicating online are less willing to seek face-to-face services for drug problems but not interpersonal or academic problems. It is pure speculation as to why this may be, but perhaps men who are comfortable communicating online are also more likely to feel talking face-to-face about drug issues is more taboo and would be less willing to seek this help. It may also be that men who are unwilling to seek help for drug issues in person are more likely to feel comfortable communicating online due to the unique aspects of this type of communication (e.g., anonymity and disinhibition).

Suler (2001) detailed the conclusions of the International Society for Mental Health Online’s (ISMHO) clinical case study group that cited that client familiarity with online communication was an important factor for his or her suitability to utilize online therapy. The results from the current study provide some empirical support for that claim.
that was originally derived from clinical experience of online therapists. The current results are also consistent with findings of Rochlen, et al, (2004), who found significant positive correlations between an email comfort scale and attitudes toward online counseling. Rochlen, et al. found no relationship between email comfort and a two-item scale they used to determine online “counseling interest and likelihood (p 105).” That scale actually used one likelihood of using services item and one item about interest in learning more about online counseling, seemingly two different constructs. The current findings are a more direct examination of the relationship between online communication comfort and intentions to use online counseling, so these results extend the current research into this direction. Additionally, the current project extended the literature by examining several different types of problems that people might seek help for instead of one general help-seeking variable, finding differences among the different types of counseling problems.

Overall, these results indicate that people’s comfort communicating online is an important individual difference variable to consider when assessing their attitudes or intentions to seek online counseling. What leads to online communication comfort or how to increase it remain open questions for research. Further research can examine factors contributing to online communication comfort and understanding its role in online attitudes and intentions.

**Self-Stigma.**

The hypothesis about the relationships between self-stigma and online and attitudes toward face-to-face counseling and intentions was partially supported. Self-
stigma showed negative relationships with attitudes toward both types of counseling, consistent with previous theory in this area (Corrigan, 2004). Self-stigma, though, was significantly less negatively related to attitudes toward online counseling than it was to attitudes toward face-to-face counseling, supporting the hypothesis. This finding may indicate that people with self-stigma toward counseling services may feel less stigmatized when considering services online. It could also be that people who have more positive attitudes toward online services experience less self-stigma in general stemming from their ability to not feel stigmatized in the first place.

When examining relationships to intentions to seek face-to-face help for the three categories of problems, self-stigma was negatively related to all three. This relationship has been found in past research (Vogel, Wester, Wei, & Boysen, 2005). When the same relationships were examined for these problems with intentions to seek online counseling, no significant relationships were present, either positive or negative. Statistical analyses of these relationships showed that self-stigma was more negatively related to intentions to seek face-to-face help for each type of problem than its online counterpart. These results indicate that people with self-stigma may be more willing to seek help online for various problems than they would be through traditional services.

Link and Phlan (2001) discussed the negative outcomes of stigma and how people thus seek to reduce their experience of stigma. These results indicate that the online medium may be a way to buffer the personal experience of self-stigma, leading to improved attitudes and intentions when compared to face-to-face experiences. Although self-stigma did not show positive relationships with these variables, the significantly improved relationships when compared to the face-to-face counterparts provide some
support for the theory that services online may be more attractive to certain individuals (Mallen, Vogel, Rochlen, & Day, 2005). Future research will have to examine if people who feel stigma from mental health problems will actively seek online services. The improved relationships that this study found for online help seeking and attitudes toward online counseling is a promising start, but it remains unclear whether or not stigmatized people will actually turn to online services for help.

Thus, these findings offer considerable support for the theory that counseling services online are less stigmatizing for clients. Across attitudes and all three intentions variables, online services were related to less self-stigma than were face-to-face services. These results have intriguing implications for how online services may open access to people who feel too stigmatized to seek traditional services. Future research will have to examine if these people actually utilize such services.

**Gender role conflict.**

The hypothesis exploring the relationship between male gender role conflict and attitudes toward counseling and intentions to seek help was partially supported. The findings of significant and positive relationships between Restrictive Emotionality (RE) and Restrictive Affectionate Behavior Between Men (RABBM) with attitudes toward face-to-face counseling is opposite of the negative relationships found in the previous literature (Berger, Levant, McMillan, Kelleher, & Sellers, 2005; Wood 1995). No relationships with face-to-face attitudes were found for Success, Power, Competition (SPC) or Conflicts Between Work and Family Life (CBWFL), where again previous research has found negative relationships (O’Neil, 2007). Three of the GRC constructs
(CBWFL, SPC, and RABBM) did not have significant relationships with attitudes toward online counseling. RE, though, did have a positive relationship with attitudes toward online counseling, supporting the idea that gender role conflicted men may be more attracted to online services due to the nature of these services. Since these are correlational findings, it is also possible that men who have positive attitudes toward online services experience more RE since they might prefer this style of disinhibiting/anonymous communication. It is also possible that an unmeasured variable is confounding this relationship.

The difference between the relationships among the gender role constructs and attitudes was not significant, though, a finding which would have further supported the original hypothesis. Instead, this sample of men had gender role conflict constructs that were positively related to both types of counseling services. These findings are similar to the findings of Rochlen, Land, and Wong (2004) who found no differences in the relationship of gender role conflict to online or attitudes toward face-to-face counseling. However, those researchers did not explore actual intentions of men to use online services in their study.

The relationships between intentions to seek help and gender role conflict produced some unexpected findings. No relationships were found for intentions to seek face-to-face help for interpersonal problems (where a negative relationship would have been predicted from past literature and theory, Addis & Mahalik, 2003). No relationships also existed for intentions to seek online help for interpersonal problems (where a positive relationship was hypothesized). Given the abundance of contrary findings in the literature, it is likely that this is an unusual sample of men. Past research is often
conducted on college-aged men, so why this would be an unusual sample is unclear. It would be useful to have these gender role relationships tested in another sample of men.

The pattern of relationships held better to theory and past research when examining the relationships of gender role conflict with intentions to seek help for academic problems. Intentions to seek face-to-face help for academic problems was significantly and negatively related to the GRC domain of Success, Power, Competition (SPC). This relationship was not significant for intentions to seek online help for academic problems. The statistical difference between the two relationships was significant, with intentions to seek face-to-face help for academic problems showing a stronger negative relationship with SPC. These results support the idea that gender role conflicted men may be more willing to use online services for their academic concerns.

The SPC domain is the construct of gender role conflict most likely to have a relationship with academics due to its theorized measurement of work related activities (O'Neil, 2008). Academics were chosen for this study since they are closer to the everyday life of traditional college males than the work life concerns of working adult males. It is possible that a similar relationship would occur for men and intentions to seek help for work concerns. Although gender role conflict did not show a positive relationship with intentions to seek online help for academic problems, this improved relationship supports the idea that gender role conflicted men may be more likely to seek help online than face-to-face.

For intentions to seek online help for drug problems, a significant positive relationship was found with Conflicts Between Work and Family Life (CBWL). This finding supported the hypothesis. For intentions to seek face-to-face help for drug
problems there was a significant positive relationship with RABBM, contrary to expectations. The relationship comparison was not significant for RABBM. The fact that intentions to seek online services for drug problems was positively related to CBWL supports the idea that men may find online services to be an attractive option for help. This relationship when compared to intentions to seek face-to-face help for drug problems relationship to CBWFL did not achieve significance. This finding would have more weight if a positive relationship of RABBM with intentions to seek face-to-face help was not found.

It is possible that this sample of men was just more willing to seek traditional services even when gender role conflicted or that the nature of GRC and traditional help-seeking is changing. The positive and non-significant relationships of gender role constructs to attitudes toward face-to-face counseling and intentions was unexpected. Except for the academic domain, these relationships did not support the hypothesis that men would be more willing to use online services than face-to-face services. O’Neil (2008) commented on the relatively new area of research on masculine gender role conflict and its relationship to help-seeking behaviors. These findings are a starting point for understanding the relationship between gender role conflict and online counseling help-seeking behaviors.

Overall, these results question the theory that online counseling is sufficient to overcome to the negative relationship of masculinity with help-seeking attitudes and intentions to seek counseling. It may not be sufficient enough to just take counseling services and put them on a computer rather than in a room and have this new setup counteract the impact of gender role conflict in men. The aspects of gender role conflict
that work against help seeking may be against the entire concept of help seeking, regardless of the form. Thus, a gender role conflicted male may not feel any different about being anonymous or disinhibited even in the online environment; however, this was not a universal outcome from the data set. The current results did show some promise for intentions to seek online academic help and positive attitudes toward online counseling in general. In particular, it is important to note that specific aspects of gender role conflict had relationships with these help-seeking variables. SPC was related to academic intentions, CBWFL was related to drug intentions, and RE was related to attitudes toward online counseling. Thus, different aspects of gender role conflict did show relationships with particular aspects of attitudes and intentions, important information for future research. Future research will be needed to further clarify the nature of these relationships.

**Personality.**

Results generally supported hypothesis four and the role of the personality aspect of Openness in attitudes toward online counseling and intentions to seek online help except for drug problems. Openness was significantly related to attitudes toward online counseling as well as intentions to seek online counseling for both interpersonal and academic problems. Openness was not related to intentions to seek online help for drug problems though, contrary to the hypothesis.

Post-hoc analyses accounting for gender revealed that these positive relationships appeared to be driven by women, because separate analyses by gender revealed that these positive relationships remained for women but changed for men. For men, Openness was
not related to attitudes or intentions to seek online help. These results indicate that
Openness is an important factor for women in their attitudes toward online counseling
and intentions to seek online help but does not have the same relationship for men. Past
literature has shown a relationship of Openness to traditional forms of help-seeking
(Hopwood et al., 2008; Klocker & Hicks, 2008), and the current findings extend that
relationship to online forms of counseling as well. Since online counseling presents a new
type of treatment option that is generally unknown to people, it makes sense that a higher
level of Openness would be related to positive attitudes and intentions to use these
services.

Results did not support hypothesis five, which predicted that the personality
construct of Extraversion would be related to attitudes toward online counseling and
intentions to seek help online. Even though past research has indicated that Extraversion
is related to face-to-face help-seeking (Amirkhan, Risinger, & Swickert, 1995; Klocker &
Hicks, 2008), this aspect of personality appears to not be a significant individual
difference related to online counseling. Although low Extraversion has been significantly
linked to revealing more about the self online (Amichai-Hamburger, Wainapel, & Fox,
2002), this personality facet may not relate to the attitudes or intentions needed to interact
in online counseling in the first place. Tsan and Day (2007) had previously found that
Extraversion was significantly related to intentions to seek help through non-traditional,
internet microphone services but was not related to other types of internet counseling
services. These results, while contrary to the hypothesis, appear to create a new argument
that Extraversion is not related to attitudes toward online counseling or help-seeking. A
future study may find significant relationships when studying the role of Extraversion in
actual online counseling sessions since Introverts may benefit more from the experience of the online aspects of anonymity and disinhibition.

The other factors of the Five Factor personality theory were also explored to assess if any of them may be important individual differences to consider for online counseling. Agreeableness was found to be a significant contributor to intentions to seek online help for both interpersonal and drug problems while Neuroticism was positively related to attitudes toward online counseling. Post-hoc analyses revealed that these relationships, though, appear to be significant due to their relationship with men; none of these relationships were significant for women. Men showed the same significant relationships as the entire sample with an additional significant relationship of Conscientiousness with intentions to seek online help for interpersonal concerns. The non-significant relationship of Neuroticism to online help-seeking is similar to findings of Tsan and Day (2007). Neuroticism, at least for men, may be related to attitudes toward online counseling, but not to actual intentions to seek online help. The significant relationship of Agreeableness to male intentions to seek online help for both interpersonal and drug problems is a new finding from the current study. Agreeableness has shown to have a relationship to traditional help-seeking at least for family therapy (Hopwood et al., 2008). The current results indicate that Agreeableness may also be related to online counseling help-seeking. The relationship of Conscientiousness for men is also a new finding and will need to be supported with future research. These results indicate that while Openness and Extraversion are not important individual differences for male attitudes toward online counseling and intentions to seek online help, these other aspects of personality are important to consider.
The significant findings of certain personality constructs being related to attitudes toward online counseling and intentions to seek online counseling has implications for suggestion about taking personality into account for treatment planning (Harkness & Lillienfeld, 1997). As the demand for mental health services increases and supply cannot meet this demand, certain online mental health services may become attractive options for certain clients. Referring clients to these services may allow these clients to access help earlier and help reduce strain on agency utilization rates. For example, clients with higher Openness aspects of their personality may be encouraged to try new types of treatments, especially stand-alone online treatments that require little to no therapist time.

Now that the main findings have been discussed, supplementary findings are next discussed.

**Other findings.**

MANOVA analyses revealed that previous mental health counseling had an impact on a variety of the individual difference variables, most notably self-stigma, attitudes toward face-to-face counseling, and intentions to seek face-to-face counseling. These findings strongly support assessing for previous mental health experience and controlling for it in future research. People with such experience indicated more favorable attitudes and intentions and less self-stigma. These results make intuitive sense since people who have previously experienced mental health counseling have some past knowledge about it and may have different attitudes, intentions, and self-stigma than people without previous experience.
An additional analysis was conducted to explore gender differences among the dependent attitude and intentions variables. A MANOVA revealed that men and women did not differ in their attitudes toward online counseling or their intentions to seek online help for any of the three problems. A separate MANOVA showed that men and women did not differ on these domains for the face-to-face measures as well. Men and women, though, did statistically differ on their self-stigma scores, with men demonstrating more self-stigma. Given the improved relationships for self-stigma to intentions to seek online help and attitudes toward online counseling compared to their face-to-face counterparts, the fact that men had more self-stigma than women indicates that online services may indeed help the male underutilization of mental health services. Based on previous literature, it was expected that men would have shown more negative attitudes toward attitudes toward face-to-face counseling and the three intentions to seek face-to-face help measures (Addis & Mahalik, 2003). This was not the case in this sample, pointing to the fact that this sample had men who were more willing to seek help or women who were less willing. These results bolster the findings of the relationships of gender role conflict to attitudes and intentions in this sample. Current college students may be experiencing more positive attitudes and intentions to seek help in general than previous cohorts. Overall, these results point to a possible change in the relationships between gender role conflict and attitudes toward counseling and intentions to seek counseling.

**Trends**

Results indicated that gender is an important variable to consider when exploring individual differences relationships for online counseling. Comfort with online
communication was only related to attitudes toward online counseling and intentions to seek online help for females; it had no relationships for men. Gender was especially important to consider with the personality constructs. Although Openness had a significant relationship with attitudes toward online counseling and intentions to seek online help for both interpersonal and academics problems for women, Openness had no relationships to attitudes toward online counseling or any of the three intentions to seek online help for men. Gender did not change the non-significant relationships with Extraversion. Women did not have significant relationships of Agreeableness, Conscientiousness, or Neuroticism with attitudes toward online counseling or intentions to seek online help. For each of the different intentions and attitudes variables for men, one of these three personality variables was significant. For women, it seems only Openness is important in determining attitudes toward online counseling and intentions to seek online help, while for men Openness and Extraversion are not important although Agreeableness, Conscientiousness and Neuroticism may need to be considered. Thus, gender is an important demographic variable to consider when exploring individual differences relationships with online counseling. To not consider relationships by gender would provide an incomplete picture of these different relationships.

The results for self-stigma in this sample provide important information about attitudes toward online counseling and intentions to seek online help. Gender did not impact the relationship of self-stigma to the online counseling measures. For all the dependent variables, the negative impact of self-stigma was reduced when the variable of interest was online counseling when compared to face-to-face counseling. These results provide a clear indication of how self-stigma is related to these types of services. These
results offer a suggestion that online services may be one way to address self-stigma in client populations. These considerations are addressed in the “Implications for Practice” section.

Intentions to seek counseling was divided into three different problems areas. Depending on the area of problem, the relationship to these individual difference variables differed. Comfort with online communication was related to interpersonal problems but not academic or drug problems. Self-stigma showed similar relationships to all three intentions variables: self-stigma was negatively related to the face-to-face variables and not related to the online variables. No aspect of gender role conflict had any significant relationship with intentions to seek online help for interpersonal problems or intentions to seek face-to-face help for interpersonal problems. No aspect of gender role conflict had any significant relationship with intentions to seek online help for academic problems, while Success, Power, Competition was negatively related to intentions to seek face-to-face help for academic problems. The aspect of Conflicts Between Work and Family Life had a significant positive relationship with intentions to seek online help for drug problems, while Restrictive Affectionate Behavior Between Men was significantly negatively related to intentions to seek face-to-face help for drug problems. For the personality constructs, intentions to seek online help for both interpersonal and academic problems were significantly related to personality constructs, while there was no relationship with intentions to seek online help for drug problems. These results indicate that intentions to seek online counseling is not one, static variable, but varies depending on the area of concern. Thus, the particular issue one is dealing with is an important aspect of understanding that person’s intentions to use online services.
These results indicate that individual differences are related to people’s attitudes about online counseling as well as their intentions to use it. The results for self-stigma provide the strongest base for ways in which online counseling may be used to potentially treat people experiencing self-stigma. The results for gender role conflict are less clear but still provide some support for the idea that online services may be more attractive to gender role conflicted men. Next, the limitations of this study are discussed and, after their consideration, ideas about future directions for research are presented.

**Limitations**

The following section will discuss some of the limitations of the current study. As an exploratory study, the current research should be considered as a starting point for future examinations of individual differences in the area of online counseling. Limitations of the design of the study and its generalizability are discussed. Future directions for research to build off these findings are considered.

Since this was an exploratory study of a new area - attitudes toward online counseling and intentions to seek online counseling - hypotheses were broad and chosen to create a basis for future research. Analyses relied on a variety of correlations and regressions to explore relationships among these previously unstudied variables. Due to the number of analyses run, it is possible that some of the significant findings are the result of Type I error. Generally, though, across analyses, only a few significant findings were close to the .05 threshold, whereas many were below .01. Future research can build
on these findings and further validate significant findings while also providing more specific hypotheses to evaluate.

Online counseling is a new area that is unfamiliar to most people. If online counseling becomes more popular this unfamiliarity may change as people better understand online counseling and experience it more in their lives. The current study tried to describe what online counseling was in order to minimize this impact on participants, but a limitation of the research is that participants were asked about attitudes and intentions of something more than 95% of them had never experienced; over 50% of participants reported experiencing face-to-face counseling themselves. A more accurate perception of what online counseling is may impact these relationships. For example, Rochlen, Land, and Wong (2004) found that men who were exposed to a sample of what an online counseling session might look like had significantly more positive appraisals of online counseling than they did before being exposed to this sample.

These results are also limited in their generalizability due to the sample of college students. This project sought to examine college students, yet this is one sample of students from a large university in the Midwest and may not be representative of the general population of college students. Since this sample was entirely college students, it may not be representative of the general adult population. Communicating online is a recent phenomenon that has increased exponentially over the past two decades. College students are well versed in communicating online and through other text methods, especially text messaging. Since this was a sample of college students, the relationships of online communicating with attitudes and help-seeking may be different than in older adults. As online communicating appears for the present to be ever growing, future
college students may experience even greater levels of online communication comfort and may turn to online services.

The attitude measure, the OCAS, was chosen since it was the only instrument found in the literature that has been created at this time to explore attitudes toward online counseling. Its face-to-face construct allowed for convenient comparison of attitudes toward online counseling with attitudes toward face-to-face counseling. Since this is a new instrument, further research using it will bolster its claim to measurement of the constructs of attitudes toward online counseling and attitudes toward face-to-face counseling. The initial evidence and face validity of the instrument supported its use in this study.

The current study is limited in its generalizability due to the method it used for the intentions measures. These students were asked about hypothetical issues that they may not have been experiencing at the time. Their attitudes and intentions may have been different if they were actually in need. Future studies that involve comparing these individual difference variables among face-to-face counseling clients and online counseling clients would add support to these findings.

The three intentions variables (interpersonal, academic, and drug) were chosen due to common research practice done on this paradigm in the literature (Cash, Begley, McCown, & Weise, 1979; Cepeda-Benito & Short, 1998). This study could have just assessed the intentions to seek help generally instead of breaking this variable into these three different problems. The differing pattern of findings for these variables with the different individual differences variables, supports the paradigm of assessing relationships for different types of concerns. Gender role conflict may not be related to
using online counseling for interpersonal concerns, but online counseling may be a more attractive option to the gender role conflicted man dealing with academic or drug concerns. The differing findings for the separate individual differences variables indicates that the type of concern one is having is an important consideration for the intention to use online services versus traditional services. Next, future areas for research from these findings are considered.

**Future Research**

These individual difference variables’ relationships provide a basis for many future directions of research in the field. The actual process by which students ultimately use online help needs to be understood. The current study asked about hypothetical problems a student may face. A next step may be to assess students who are currently in need of services for a particular problem and assess their intentions to seek online or face-to-face services at that time. These same students could then be tracked in a prospective study to see if they actually used services made available to them.

Another major area of research would involve assessing for these individual difference variables in actual clients of online therapists. By comparing levels of these variables in a sample of online therapy clients to the levels in face-to-face clients research can determine if different types of people are using these types of therapy services. Research can also directly ask online therapy clients about the reasons they chose that modality for services.
Future research would also benefit from examining groups other than college students. By examining the rest of the population seeking mental health services, research can determine if and how online therapy services are attractive to the rest of the population. College students are a unique group with unique cultural pressures and experiences. College student attitudes toward online counseling and intention to use online services may differ from the rest of the population.

Additionally, future research exploring how these individual differences relate with specific multicultural groups would help explain if current findings are due to the majority of this sample being Caucasian students or if there are different relationships among different ethnic groups. Different cultures communicate in different ways and it remains to be seen if there are multicultural differences in attitudes toward online counseling or intentions to use it.

Much has been discussed about the unique characteristics of online counseling. Technology such as video chat (Skype, etc) now makes the possibility of remote counseling while still allowing the therapist and client to see each other possible. Theorists have discussed how such video counseling may actually remove the disinhibiting and anonymity effects of email or instant message counseling. Further research should distinguish between different forms of counseling when assessing intentions and attitudes toward online counseling.

Finally, a path analyses that includes the relationships of these individual differences to attitudes and then to intentions may create a useful understanding of the links between all these variables. Such an analysis could begin to make sense of potential causeways in the relationships.
Implications for Practice

Online education has become a major force at all levels of education (Allen, & Seaman, 2008). Counseling services are typically offered at traditional universities and online counselors may become integral services of these online educational institutions. Given the growing body of research supporting the legitimacy of online counseling in general, it makes sense that such universities would offer traditional counseling center services online to their students. Additionally, the traditional brick and mortar institutions are experimenting with online mental health portals. These portals are often psychoeducational in nature (see University of Michigan’s MiTalk program for an example). The next logical step would be for these institutions to begin to offer forms of online counseling to their students. Loyola University Maryland for example offers the REACT program about trauma response to students online (https://reactonline.loyola.edu/online/). Universities seem to be responding to an increasingly online savvy student population and pursuing these types of counseling options for them.

These online universities’ counseling centers could become a place at the forefront of research into online mental health practice. Just as traditional, brick-and-mortar university counseling centers provide a wealth of process and outcome data for face-to-face counseling, online university counseling centers could do the same for online counseling. Tracking usage and having outcome measures for online students would allow researchers to examine online counseling process and efficacy on a large scale.

The positive relationship found between online communication comfort and attitudes toward online counseling and intentions to seek online help has implications for practice. While those who feel comfortable communicating online through past
experience may gravitate toward these services, these findings also imply that there may be ways to prepare clients for an improved online counseling experience. Through psychoeducation explaining how online services work and what communicating online may involve, clients may experience improved comfort communicating through this medium and then engage in online services.

These results indicate that online counseling may be more effective for overcoming self-stigma than gender role conflict. Perhaps the unique aspects of online counseling are set up for this to occur. Thus, the stigmatized client may feel less stigmatized being in his or her own home and feeling somewhat anonymous, but the gender role conflicted man, even online, still experiences problems with his masculine gender role seeking help in any context. These results indicate that the medium of services may be useful for some clients and not useful for others. Offering online services may help attract the stigmatized client, other ways need to be found to attract the gender role conflicted male.

It would be remiss to discuss practice implications without addressing the issue of access to services and the “digital divide.” Very good online services may exist, but clients may be unaware that this option is available to them or know that online counseling is even a possibility. As online services grow and online therapists market their trade, this knowledge will grow and people will learn about the ways in which they can access these services. Practitioners and researchers need to push to make this access known. The BEACON program through the Australia National University (http://cmhr.anu.edu.au/research/e-health) is one example of outreach efforts to make existing internet therapy programs known. While technology and the internet may seem
commonplace to many of us, the inequality of this access to lower SES groups has been well documented (Stern, 2010). Thus, without access, no matter how beneficial online service may be, certain people in need will be unable to access them. Counseling Psychology with its social justice foundation is in prime position to begin addressing these issues.

With the development of online counseling services will come the training of psychologists to work on the online medium. Indeed, certificate programs for conducting therapy online are already in place (Murphy, MacFadden, & Mitchell, 2008). New and innovative training will have to take place to prepare psychologists to ethically and competently offer these services.

Finally, these findings hope to encourage mental health professionals to take a leap into providing some services online. Many mental health professionals take issue with the idea of providing services in such a sterile, distant environment, compared to the warmth of the traditional counseling office. Many of these professionals are content to simply say that online counseling is not a useful or worthwhile endeavor. Until services are offered online and studied, this question will never be answered. This research though begins to indicate that online services have one very important use: opening access to stigmatized clients. To a lesser extent these results offer that it is also worthwhile for some aspects of gender role conflict. As more research is conducted, more benefits of online services may be verified. As a field, psychology must not be scared of the unknown or change to begin to offer these services. The potential benefit for clients who are not using the services mental health professionals currently offer could be enormous. It is time the field explored these possibilities.
Conclusions

In sum, this dissertation aimed to empirically explore the link between individual differences and attitudes toward online counseling as well as intentions to seek online counseling services. The results provide a basis for future research in the field. Hopefully future research will be able to build upon these results and answer the question of whether online counseling may be a way for certain people to access mental health services who otherwise would not, or could not, use face-to-face services.

As the new generation continues to immerse its life in technology and text-based communication, the ways of traditional relationships are changing. The positive relationship of online communication comfort to both attitudes toward online counseling and intentions to seek online help for interpersonal concerns hints at the importance of experience and comfort communicating in this text medium for online services to be a viable option. Additionally, for those who have had previous therapy experience, there is more openness to online counseling.

Online services appear to have particular promise for people feeling stigmatized. Across the board, for attitudes and all three intentions measures, people had less self-stigma toward the online measures than the face-to-face measures. When compared by gender these results held for women, and only the comparison relationship for intentions to seek online help for academic concerns became non-significant for men. These results indicate that generally regardless of gender, online counseling is a less stigmatizing option for students than traditional services.
The promise of online counseling for gender role conflicted men is less clear from these results. Men did not demonstrate more positive relationships between aspects of gender role conflict and attitudes toward online counseling when compared to attitudes toward face-to-face counseling. Gender conflicted men had no more intention to seek online services for interpersonal concerns, although they did appear to have more intention to seek online services for academic and drug problems. Therefore, online counseling may be an alternative for these types of concerns for gender role conflicted men.

Taken together, these findings indicate that online counseling may be a more attractive option for certain people who have unfavorable attitudes toward counseling and are less likely to use traditional mental health services. Since this is an emerging field, the ways these online services are packaged and presented may influence whether they are actually used by these people. Research on these individual differences in actual online clients will help answer this question and determine if online services can fill a need for certain clients.
REFERENCES


Caspar, F., & Berger, T. (2005). The future is bright: How can we optimize online counseling, and how can we know whether we have done so? The Counseling Psychologist, 33, 900-909.


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APPENDICES
APPENDIX A

ONLINE COUNSELING ATTITUDES SCALE

The next two questionnaires 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.

With most online counseling services, clients can choose among several options. For the purpose of this study, consider having your choice of corresponding with a counselor through e-mails or through an online “real time” text chat arrangement. A client using e-mail 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 and 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. Read each item carefully and indicate your agreement using the following scale:

1= *strongly disagree*

2= disagree

3= slightly disagree
4 = slightly agree
5 = agree
6 = strongly agree.

__1 Using online counseling would help me learn about myself
__2 If a friend had personal problems, I might encourage him or her to consider online counseling
__3 I would confide my personal problems in an online counselor
__4 It could be worthwhile to discuss my personal problems with an online counselor
__5 If online counseling was available at no charge, I would consider trying it
__6 If I were having a personal problem, seeking help with an online counselor would be the last option I would consider
__7 I would feel uneasy discussing emotional problems with an online counselor
__8 I would dread explaining my problems to an online counselor
__9 I think it would take a major effort for me to schedule an appointment with an online counselor
__10 I would be afraid to discuss stressful events with an online counselor
__11 Using face-to-face counseling would help me learn about myself
__12 If a friend had personal problems, I might encourage him or her to consider face-to-face counseling
__13 I would confide my personal problems in a face-to-face counselor
__14 It could be worthwhile to discuss my personal problems with a face-to-face counselor
15 If face-to-face counseling was available at no charge, I would consider trying it
16 If I were having a personal problem, seeking help with a face-to-face counselor
    would be the last option I would consider
17 I would feel uneasy discussing emotional problems with a face-to-face counselor
18 I would dread explaining my problems to a face-to-face counselor
19 I think it would take a major effort for me to schedule an appointment with a face-
    to-face counselor
20 I would be afraid to discuss stressful events with a face-to-face counselor
## APPENDIX B

### GENDER ROLE CONFLICT SCALE

### SITUATIONAL BEHAVIOR SCALE

**Instructions:** In the space to the left of each sentence below, write the number which most closely represents the degree that you *Agree* or *Disagree* with the statement. There is no right or wrong answer to each statement; your own reaction is what is asked for.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Strongly Disagree</th>
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<tbody>
<tr>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
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<tr>
<td>4</td>
<td>3</td>
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<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>1</td>
<td>6</td>
</tr>
</tbody>
</table>

1. Moving up the career ladder is important to me.
2. I have difficulty telling others I care about them.
3. Verbally expressing my love to another man is difficult for me.
4. I feel torn between my hectic work schedule and caring for my health.
5. Making money is part of my idea of being a successful man.
6. Strong emotions are difficult for me to understand.
7. Affection with other men makes me tense.
8. I sometimes define my personal value by my career success.
9. Expressing feelings makes me feel open to attack by other people.
10. Expressing my emotions to other men is risky.
11. My career, job, or school affects the quality of my leisure or family life.
12. I evaluate other people's value by their level of achievement and success.
13. Talking (about my feelings) during sexual relations is difficult for me.
14. I worry about failing and how it affects my doing well as a man.
15. I have difficulty expressing my emotional needs to my partner.
16. Men who touch other men make me uncomfortable.
17. Finding time to relax is difficult for me.
18. Doing well all the time is important to me.
19. I have difficulty expressing my tender feelings.
20. Hugging other men is difficult for me.
21. I often feel that I need to be in charge of those around me.
22. Telling others of my strong feelings is not part of my sexual behavior.
23. Competing with others is the best way to succeed.
24. Winning is a measure of my value and personal worth.
25. I often have trouble finding words that describe how I am feeling.
26. I am sometimes hesitant to show my affection to men because of how others might perceive me.
27. My needs to work or study keep me from my family or leisure more than I would like.
28. I strive to be more successful than others.
29. I do not like to show my emotions to other people.
30. Telling my partner my feelings about him/her during sex is difficult for me.
31. My work or school often disrupts other parts of my life (home, health, leisure).
32. I am often concerned about how others evaluate my performance at work or school.
33. Being very personal with other men makes me feel uncomfortable.
34. Being smarter or physically stronger than other men is important to me.
35. Men who are overly friendly to me, make me wonder about their sexual preference (men or women)
36. Overwork, and stress, caused by a need to achieve on the job or in school, affects/hurts my life.
37. I like to feel superior to other people.
APPENDIX C

SELF STIGMA OF SEEKING HELP SCALE

INSTRUCTIONS: People at times find that they face problems that they consider seeking help for. This can bring up reactions about what seeking help would mean. Please use the 5-point scale to rate the degree to which each item describes how you might react in this situation.

1 = Strongly Disagree  2 = Disagree  3 = Agree & Disagree Equally  4 = Agree  5 = Strongly Agree

___ 1. I would feel inadequate if I went to a therapist for psychological help.
___ 2. My self-confidence would NOT be threatened if I sought professional help.
___ 3. Seeking psychological help would make me feel less intelligent.
___ 4. My self-esteem would increase if I talked to a therapist.
___ 5. My view of myself would not change just because I made the choice to see a therapist.
___ 6. It would make me feel inferior to ask a therapist for help.
___ 7. I would feel okay about myself if I made the choice to seek professional help.
___ 8. If I went to a therapist, I would be less satisfied with myself.
___ 9. My self-confidence would remain the same if I sought help for a problem I could not solve.
___ 10. I would feel worse about myself if I could not solve my own problems.
APPENDIX D

INTENTIONS TO SEEK COUNSELING INVENTORY-ONLINE

The following are 16 types of personal problems frequently treated in college counseling centers. Please use the following scale to indicate how likely you would be to see an online counselor if you had that particular issue.

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<td>3</td>
<td>4</td>
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<tr>
<td>Very</td>
<td>Moderately</td>
<td>Slightly</td>
<td>Slightly</td>
<td>Moderately</td>
<td>Very</td>
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<tr>
<td>Unlikely</td>
<td>Unlikely</td>
<td>Unlikely</td>
<td>Likely</td>
<td>Likely</td>
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</tr>
</tbody>
</table>

1. Excessive alcohol use
2. Relationship difficulties
3. Concerns about sexuality
4. Depression
5. Conflicts with parents
6. Speech anxiety
7. Difficulties dating
8. Self-understanding
9. Choosing a career
10. Difficulties sleeping
11. A drug problem
12. Feelings of inferiority
13. Anxiety about taking tests in school
14. Difficulties with friends
15. Academic work procrastination
16. Loneliness
Intentions to Seek Counseling Inventory - face-to-face

The following are 16 types of personal problems frequently treated in college counseling centers. Please use the following scale to indicate how likely you would be to see a face-to-face counselor if you had that particular issue.

<table>
<thead>
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<tr>
<td></td>
<td>Very</td>
<td>Moderately</td>
<td>Slightly</td>
<td>Slightly</td>
<td>Moderately</td>
<td>Very</td>
</tr>
<tr>
<td></td>
<td>Unlikely</td>
<td>Unlikely</td>
<td>Unlikely</td>
<td>Likely</td>
<td>Likely</td>
<td>Likely</td>
</tr>
</tbody>
</table>

___1. Excessive alcohol use
___2. Relationship difficulties
___3. Concerns about sexuality
___4. Depression
___5. Conflicts with parents
___6. Speech anxiety
___7. Difficulties dating
___8. Self-understanding
___9. Choosing a career
___10. Difficulties sleeping
___11. A drug problem
___12. Feelings of inferiority
___13. Anxiety about taking tests in school
___14. Difficulties with friends
___15. Academic work procrastination
___16. Loneliness
APPENDIX E

INTERNATIONAL PERSONALITY ITEM POOL-FIVE FACTOR MODEL

Personality Questionnaire

On the following pages, there are phrases describing people's behaviors. Please use the rating scale below to describe how accurately each statement describes you. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age. So that you can describe yourself in an honest manner, your responses will be kept in absolute confidence. Please read each statement carefully, and then fill in the bubble that corresponds to the number on the scale.

Response Options

1: Very Inaccurate
2: Moderately Inaccurate
3: Neither Inaccurate nor Accurate
4: Moderately Accurate
5: Very Accurate

1. Often feel blue.
2. Dislike myself.
3. Am often down in the dumps.
4. Have frequent mood swings.
5. Panic easily.
6. Rarely get irritated.
7. Seldom feel blue.
8. Feel comfortable with myself.
10. Am very pleased with myself.
11. Feel comfortable around people.
12. Make friends easily.
13. Am skilled in handling social situations.
15. Know how to captivate people.
16. Have little to say.
17. Keep in the background.
18. Would describe my experiences as somewhat dull.
19. Don't like to draw attention to myself.
20. Don't talk a lot.
21. Believe in the importance of art.
22. Have a vivid imagination.
23. Tend to vote for liberal political candidates.
24. Carry the conversation to a higher level.
25. Enjoy hearing new ideas.
26. Am not interested in abstract ideas.
27. Do not like art.
28. Avoid philosophical discussions.
29. Do not enjoy going to art museums.
30. Tend to vote for conservative political candidates.
31. Have a good word for everyone.
32. Believe that others have good intentions.
33. Respect others.
34. Accept people as they are.
35. Make people feel at ease.
36. Have a sharp tongue.
37. Cut others to pieces.
38. Suspect hidden motives in others.
39. Get back at others.
40. Insult people.
41. Am always prepared.
42. Pay attention to details.
43. Get chores done right away.
44. Carry out my plans.
45. Make plans and stick to them.
46. Waste my time.
47. Find it difficult to get down to work.
48. Do just enough work to get by.
49. Don't see things through.
50. Shirk my duties.

*(item is reverse scored)*
APPENDIX F

DEMOGRAPHICS

1. Age: _______years

2. Sex: ___Male ___Female ___Transgender

3. Year in College: ___1ST ___2ND ___3RD ___4TH ___5th ___6th and up ___Graduate

4. Ethnicity: ___White/Caucasian
   ___Latino/a
   ___African American
   ___Asian American/Pacific Islander
   ___Native American
   ___Biracial (describe ________________________________)
   ___Multiracial (describe ________________________________)
   ___Other (describe ________________________________)

5. Are you currently a ___Full-time or ___Part-time Student

6. Have you ever received mental health services (counseling, “talk” therapy, substance use treatment, psychiatric evaluation, etc.)? ____Yes ____No
   
   If yes: a. Have you received services online? ____Yes ____No
   
   b. Have you received services in person ____Yes ____No

7. Have you ever participated in an online support group/forum/message board? ___Yes ___No
8. Please rate how well you believe the following statements apply to you

<p>| | | | | | |</p>
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<td>5</td>
<td>6</td>
</tr>
<tr>
<td>strongly disagree</td>
<td>slightly disagree</td>
<td>slightly disagree</td>
<td>agree</td>
<td>strongly agree</td>
<td>agree</td>
</tr>
</tbody>
</table>

- __"I enjoy sending e-mails"__
- *__“I do not enjoy instant messaging with other people”__
- __"I feel it is possible to communicate feelings through e-mail messages."__
- __“I am comfortable communicating via text”__
- __“I am comfortable communicating through the internet”__
- *__“I do not enjoy social networking” online__
Title of Study: Examining the relationships amongst individual differences and counseling services

Introduction: You are invited to participate in a research project being conducted by Mr. Nicholas Joyce (a graduate student in the Department of Counseling) under the supervision of Dr. Ingrid Weigold (a faculty member in the Department of Counseling).

Purpose: The purpose of this project is to get information about different characteristics of college students that might be related to counseling use. We would like to get information from approximately 400 participants.

Procedures: If you agree to participate, you will be asked to answer a number of questions about personal characteristics and willingness to seek different types of counseling services. This will take you no more than one hour.

Exclusion: You must be at least 18 years old to participate in this research study.

Risks and Discomforts: No adverse events are expected beyond those encountered in daily life.

Benefits: You will receive no direct benefit from your participation in this study, but your participation may help us better understand personal characteristics that might be related to counseling services in college students.

Payments to Participants: You will receive 2 credits on HPR for participating in this study.

Right to refuse or withdraw: Participating in this study is completely voluntary. You can quit at any time and you won’t lose anything.

Anonymous and Confidential Data Collection: Data will be kept confidential. Any identifying information collected will be kept in a secure location and only the
researchers will have access to the data. Participants will not be individually identified in any publication or presentation of the research results. Only aggregate data will be used.

Confidentiality of records: Your answers will be put in a computer file by number, without your name. The consent forms will not be downloaded with the questionnaires. The consent forms and raw data will be kept for no less than 5 years and destroyed after that time in accordance with APA guidelines.

Who to contact with questions: If you have any questions about this study, you may call Dr. Ingrid Weigold at (330) 972-8156. This project has been reviewed and approved by The University of Akron Institutional Review Board. If you have any questions about your rights as a research participant, you may call the IRB at (330) 972-7666.

Acceptance & signature: I have read the information provided and all of my questions have been answered. I voluntarily agree to participate in this study. Clicking the “Yes” button below will serve as my consent. I may print a copy of this consent statement for future reference.

Yes, I agree to participate in the research described above____________________

No, I decline to participate in the research described above____________________
This study explores how individual differences in personality, self-stigma, and gender role conflict might relate to college students utilizing online or face-to-face counseling services for different problems. The growth of the internet has created new forms of counseling over the internet. Little research though has examined what types of people would find such services to be attractive or be willing to use them. We are seeking to examine if certain types of college students are interested in such services. If you feel that you may be in need of counseling services you can contact:

- The University of Akron Counseling Center
  - (330) 972-7082
  - Open to students

- The Department of Psychology Counseling Clinic
  - 330-972-6714
  - Open to students and the community

For more information on internet counseling see:

APPENDIX I

MANIPULATION CHECK

(check one) This study was about online counseling

face-to-face counseling
APPENDIX J

IRB APPROVAL FORM

NOTICE OF APPROVAL

APPENDIX J

IRB APPROVAL FORM

NOTICE OF APPROVAL

September 22, 2013

Name: [Redacted]

Title: [Redacted]

Department: [Redacted]

Thank you for submitting your IRB Application for Review. Your Application has been reviewed by the IRB Committee and approval has been granted. As you are aware, all activities conducted within the scope of your proposal must be approved by the IRB prior to the start of research activities. The IRB will also review any changes or additions to your research protocol and will notify you of any necessary modifications.

On behalf of the IRB Committee, I hereby authorize the commencement of your research activities.

Applicant: [Redacted]

IRB Committee Chair

Office of Research Services and Sponsored Programs

2013-1325

Closing Date: [Redacted]

Procedure: [Redacted]

Protocol Number: [Redacted]

PI: [Redacted]

Research Team: [Redacted]

Institutional Review Board (IRB) Approval Date: September 22, 2013

Institutional Review Board (IRB) Approval Number: [Redacted]

Contact: [Redacted]

Office of Research Services and Sponsored Programs

2013-1325

Closing Date: [Redacted]

Procedure: [Redacted]

Protocol Number: [Redacted]

PI: [Redacted]

Research Team: [Redacted]

Institutional Review Board (IRB) Approval Date: September 22, 2013

Institutional Review Board (IRB) Approval Number: [Redacted]

Contact: [Redacted]