Sarah J. McCreight, ONLINE MENTAL HEALTH SERVICES: DO WOMEN VIEW THIS AS A VIABLE TREATMENT OPTION FOR SEXUAL ASSAULT? (Under the direction of Dr. Heather Littleton) Department of Psychology, December, 2010.

This study examined if college women held positive or negative attitudes toward online interventions for sexual assault as compared to traditional, face-to-face therapy, as well as to assess perceived advantages and disadvantages of utilizing online interventions, including those for sexual assault. Female students over the age of 18 (*n* = 495) were recruited to take an online survey of their beliefs toward treatment approaches for negative sexual experiences. Of the students surveyed, 35% (*n* = 171) reported a sexual assault experience in adolescence or adulthood. Of these, 68% (*n* = 109) screened positively for an experience of completed rape and 91% (*n* = 155) screened positively for an experience of attempted rape. The responses of these women were also compared to responses from non-victims to examine differences in attitudes toward online interventions among victims versus non-victims. The results supported that college women had positive perceptions of online interventions overall, but they also had concerns about the intimacy, privacy, and effectiveness of online treatment methods. Additionally, the results supported that non-victims were more likely to state they would choose treatment in a traditional, face-to-face setting, while women who had experienced sexual assault were more likely to prefer online treatments. Therefore, the potential exists for online treatments to be viewed as a viable means to provide support for victims of rape trauma. However, it is also clear that many individuals still have a number of concerns about a number of aspects of online interventions.

ONLINE MENTAL HEALTH SERVICES: DO WOMEN VIEW THIS AS A VIABLE TREATMENT OPTION FOR SEXUAL ASSAULT?

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Dedication

To Ruth James, whose incessant pleas to “finish it” finally paid off. Gram, you are loved and will be missed.

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CHAPTER I: Review of the Literature

Prevalence and risk factors for sexual assault

Multiple samples support a high prevalence of sexually violent crimes against women. The likelihood of a woman experiencing sexual assault in her lifetime is almost double her chance of being diagnosed with breast cancer, heart disease, or diabetes combined (Centers for Disease Control, 2008; 2010a; 2010b). Indeed, one in three women will experience sexual assault in one form or another during their lifespan (Feldhaus, Houry, & Kaminsky, 2000; Masho, Odor, & Adera, 2005). It is estimated that the lifetime risk of rape or attempted rape, two of the most serious forms of sexual violence, is 20% (Welch & Mason, 2007). The prevalence of experiencing sexual assault varies among different populations; for example, adolescents have the highest reported prevalence, and it is estimated that the crime is more pervasive among urban populations than among suburban or rural populations (Feldhaus et al., 2000).

The prevalence of this crime across college campuses in the United States was brought to light by Mary Koss's groundbreaking study in the 1980's of the prevalence of rape among college women nationwide. Indeed, few people really considered the possiblity that a crime as severe and traumatic as rape was occurring on campuses across the United States. Unlike prior studies that relied on reported crimes or asked women if they had ever been raped, Koss and colleagues (1987) asked women behaviorally specific questions about experiences of sexual violence (e.g., has a man ever used physical force to make you have sex with him when you did not want to), as opposed to asking women if they had ever been raped. Koss and colleagues (1987) found that among college women recruited from 32 campuses across the U.S., over

15% (*n* = 3,187) reported an experience that met the legal definition of rape and an additional 12% reported an experience of attempted rape. Another 14% reported experiencing other forms of sexual assault (Koss, Gidycz, & Wisniewski, 1987). The results of Koss' study were staggering and dismissed by many. However, her estimates were not inconsistent with prior interview research by Russell and colleagues that found a lifetime prevalence of 26% for rape in women and a 45% lifetime prevalence of attempted or completed rape (Russell, 1982; Russell & Howell, 1983). In contrast, the 1979 report on crime by the Federal Bureau of Investigation, which catologued reported crimes, indicated that only 1% of the entire population had experienced rape (US Department of Justice, 1979). As a result of the differences between Koss's findings and the crime reports from the FBI, some publicly rejected Koss's findings because the results were shockingly higher than anyone expected (Roiphe, 1991; Roiphe, 1993).

Contributing to the controversy were societal myths about rape. Some societal myths associated with rape include that it is a rare event and that most victims are young women of low socioeconomic status and from other disenfranchised groups such as ethnic minorities or prostitutes (Acierno, Resnick, & Kilpatrick, 1997). In addition, these myths assume that most women are assaulted by strangers, but in reality only 9 to13% of rape victims do not know their assailants (McFarlane et al., 2005). Indeed, most rapes are committed by acquaintances, friends, or significant others of the victim (Abbey, 2002; Feldhaus et al., 2000). Among college women who have experienced rape, 90% of the assailants were people the victims knew, and approximately half of all college rapes occur while on a date (Abbey, 2002). Over the course of time the support

for the original findings of the study by Koss and colleagues (1987) grew and led to efforts to prevent on-campus sexual assault.

Despite extensive prevention and education efforts on college campuses spurred by Koss and colleagues' (1987) findings, sexual assault prevalence among college women has remained relatively the same, with approximately 20% of college women experiencing rape (Krebs, Lindquist, Warner, Fisher, & Martin, 2009; Littleton, 2010). For example, Brener, McMahon, Warren, and Douglas (1999) surveyed 4,838 college students from 128 institutions of higher learning across the United States and found that 20% of women had been a victim of rape. More recently, Littleton, Axsom, and Grills-Taquechel (2009) found that, of a sample of 1,744 women from three universities in the southeastern United States, 340 or 19.5% screened positively for experiencing rape in adolescence or adulthood.

Several factors can potentially increase the likelihood of a woman experiencing rape or other forms of sexual assault (SA). One such factor is relationship violence. Browne (1993) found that, while varying somewhat across samples, a sizable percentage of women who have been physically assaulted by abusive partners have also been raped by that partner, with estimates ranging from 24 to 50%. More recently, McFarlane and colleagues (2005) found that 68% of a sample of women who had been in violent relationships were also sexually assaulted by their partners at least once during the relationship. In fact, Tjaden and Thoennes (1998) estimate that 1.5 million women are raped and/or physically assaulted by their partners annually.

Additionally, female sex, younger age, and previous victimization (especially victimization resulting in a diagnosis of posttraumatic stress disorder; PTSD) are all

associated with an increased risk for experiencing rape (Acierno et al., 1997; Acierno, Resnick, Kilpatrick, Saunders, & Best, 1999; Tjaden & Thoennes, 1998). Women who have preexisting psychological conditions, such as depression, specific phobia, or personality disorders also appear to be at increased risk for sexual victimization (Acierno et al., 1999). It is difficult to determine whether psychopathology causes victimization or the other way around, but that each seems to serve as a risk factor for the other. Research has shown that a strong relationship exists "…between depression, substance use disorders, antisocial personality disorder, and phobias and assault" (Acierno et al., 1999, p. 543). In other words, women who suffer from depression, for example, are more likely to experience sexual assault; conversely, women who experience sexual assault are also more likely to be depressed.

Another factor that increases risk of SA is substance use; among college students, approximately 75-82% of rapes occurred while the victim, the perpetrator, or both were under the influence of alcohol or other drugs (Acierno et al., 1997; Wechsler, Dowdall, Maenner, Gledhill-Hoyt, & Lee, 1998; Mohler-Kuo, Dowdall, Koss, & Wechsler, 2004; Krebs et al., 2009). Binge drinking, a behavior common among 44% of college students, in particular contributes to unwanted sexual encounters and sexual violence (Kilpatrick, Resnick, Saunders, & Best, 1998; Wechsler et al., 1998).

To best evaluate the prevalence and impact of rape, it is important to first understand how it is legally defined. Historically, rape statutes defined the crime as, "A carnal knowledge of a woman not one's wife by force or against her will" (Kilpatrick, 2000, Evolution of the definition of sexual assault and rape section, para. 2). The United States Model Penal Code (MPC) was established in 1962, and the definition of

rape was updated to include use of force; threat of force, death, bodily injury, or pain; and kidnapping (Kilpatrick, 2000). Sexual assault, the canopy of sexually violent crimes under which rape falls, was defined as physical assault with one or more of the following: threat to life or limb, intent to cause bodily injury, sexual aggression, or forcible restraint (Browne, 1993). Even after initial rape reform laws were established, non-consent on the part of the victim had to be demonstrated by strong physical resistance in many jurisdictions (Clay-Warner & Burt, 2005).

Because of the tumultuous protests about existing rape laws, the requirement for corroboration of victim testimony with physical evidence, and the many exclusions such as marital rape, rape by incapacitation, acquaintance or date rape, and inability to consent due to age or mental deficiency, legal definitions were updated to clarify what constitutes rape and to describe the crime in clearer and more specific terms (Clay-Warner & Burt, 2005; McMahon, 2007; Spohn, 1999). Current legally defined rape in the U.S. has several key components including force or incapacitation, non-consent (which does not imply victim physical resistance), and attempted or completed sexual acts including vaginal intercourse, anal sex, oral sex, or object penetration (Koss et al., 2007). Finally, all states have now abolished exclusions for marriage or other relationship with the victim, victim non-resistance, and incapacitation, and have adopted gender-neutral language in defining rape (Farlex, 2010). Rape law reform has come a long way in helping make rape prosecution about the actions of the perpetrator rather than those of the victim; however, social attitudes often take years to follow legal changes (Horney & Spohn, 1991; Spohn, 1999). Indeed, since these changes in laws regarding rape have occurred, the likelihood that victims will report their rape

experience to the police has increased as has the length of the sentence given to those who are convicted of rape. However, no changes have occurred in the prevalence of this crime, and only minimal changes in prosecution rates have occurred (Horney & Spohn, 1991). Thus, these legal reforms have not resulted in significant decreases in sexual assault against women. Therefore, sexual assault remains a significant societal problem that affects millions of women in the United States alone.

The impact of sexual assault

Rape is a highly traumatic event. Psychological and sociological effects of sexual trauma can be both severe and long-lasting. Welch and Mason (2007) note that only about half of rape victims recover from the acute psychological trauma nearly all rape victims experience, meaning that half of all victims experience long-term (chronic) psychological effects. Indeed, between 30 and 50% of those exposed to sexual violence will develop chronic PTSD (Roy-Byrne, Berliner, Russo, Zatzick, & Pitman, 2003). PTSD is characterized by re-experiencing the traumatic event through persistent, intrusive thoughts, flashbacks, dreams, or feeling that the rape is recurring; avoidance of trauma reminders (e.g., places, people, conversations, etc.), general numbing of emotional responsiveness (e.g., an inability to experience the full range of emotions), and hyperarousal (e.g., insomnia, exaggerated startle response; American Psychiatric Association, 2000). The effects are exacerbated among those women who have experienced multiple victimizations (Acierno et al., 1999). In addition, Kilpatrick, Resick, and Veronen (1981) found that anxiety and fear are also significant problems among SA survivors from 6 months to 1 year post-assault. They also found that depression was a significant psychological difficulty from one year and beyond if the

rape survivor did not return to normalcy after about four months. Specifically, 75% of women who had experienced rape scored in the depressed range on the Beck Depression Inventory at 2 weeks post-assault, and 46% scored more than one standard deviation above the mean, indicating that they were severely depressed; these findings were well above the average depression level of women who had not been assaulted (Kimerling & Calhoun, 1994). At the one year post-assault assessment, over 35% of the women were still depressed, with over one fourth still severely depressed.

Other common psychological problems among victims include panic disorder (3%), simple phobia (20%), obsessive compulsive disorder (11%), major depressive episodes (19%), difficulties with social adjustment or social phobias (12%), and agoraphobia (6%; Boudreaux et al., 1998). Many rape victims also experience problems with sexual functioning, insomnia, and substance abuse (Welch & Mason, 2007; Vandemark & Mueller, 2008). In addition, Kilpatrick, Best, Veronen, Amick, Villeponteaux, and Ruff (1985) conducted a community study of broad-scale criminal victimization and found that rape survivors were far more likely to attempt suicide than those who had not experienced rape (19.2% as compared to 2.2% of non-victims). Women who experienced rape also had higher instances of suicidal ideation than non-victims (44% as compared to 6.8%). Boudreaux and colleagues' (1998) analyses of this data set supported that, of all the types of crime measured in this study (completed or attempted rape, sexual molestation, aggravated assault, robbery, or burglary while at home or away), the individuals who were most likely to have severe psychological problems (i.e., PTSD in combination with at least one other Axis I disorder, such as

depression or generalized anxiety disorder) were those who had experienced a completed rape.

Emotional health is not the only thing negatively affected by the trauma of rape. Research among sexual assault survivors indicates that victims tend to be in poorer physical health overall as well (Waigant, Wallace, Phelps, & Miller, 1990; Vandemark & Mueller, 2008). The health concerns of women who have experienced sexual assault tend to be exacerbated by the fact that they have a poorer overall perception of their health status (Waigant et al., 1990; Koss, Koss, & Woodruff, 1991). Consistent with these findings, Waigant and colleagues (1990) found that victims of SA visited their physicians 35% more often than did non-victims. In addition, Concoscenti and McNally (2006) found that the frequency and intensity at which rape victims experienced somatic symptoms was dramatically higher than among non-victims. Not surprisingly, some of the major concerns among sexual assault survivors are sexual dysfunction, menstrual symptoms, and gynecological health concerns (Kimerling & Calhoun, 1994). Other physiological symptoms include cardiac arrhythmia (pounding or irregular heart rate), nausea, tension headaches, back pain, and sudden changes in weight (Kimerling & Calhoun, 1994).

A sexual violence history may also be associated with an increased risk for chronic health problems. In a study by Stein and Barrett-Connor (2000), a history of sexual assault was linked with a higher lifetime risk of arthritis and breast cancer among women. Sexual assault survivors have also been found to have a higher prevalence of potentially preventable health issues such as obesity, hypertension, and high cholesterol (Vandemark & Mueller, 2008). This risk appears related to poor health

behaviors by victims. For example, sexual assault victims, as compared to non-victims, are less likely to exercise or eat a healthy diet, and more likely to engage in unhealthy behaviors such as smoking and excessive alcohol use (Vandemark & Mueller, 2008; Waigant et al., 1990).

To summarize, the effects of rape are often chronic and can cause severe impairment in daily life functioning. Women experience mental and physical health issues that persist over time. Without the support of a mental health professional, these problems can severely affect the overall well-being of victims.

Psychological treatments for sexual assault

Given the often extreme duress suffered by women who have experienced sexual assault, it is important to develop effective treatments. Fortunately, a number of methods to effectively reduce the negative psychological effects of the trauma of rape exist. Cognitive-behavioral treatments including exposure therapy and cognitive restructuring have been widely researched.

Prolonged exposure (PE) therapy primarily supports individuals while they "relive memories of the traumatic events (i.e., imaginal exposure) and confront situations that are avoided because they trigger distressing memories and thoughts (i.e., in vivo exposure)" (Foa, Dancu, Hembree, Jaycox, Meadows, & Street, 1999, p. 194). In PE, education about the subject of trauma and breathing retraining are first provided. Then, environmental reminders of the trauma are used to introduce behavioral exposure (confronting situations that were avoided because they trigger psychological and physiological distress signals about the traumatic event). Finally, the victim is systematically exposed to the trauma memory itself. The goal of treatment is to help the

victim to change her physiological and emotional responses to trauma reminders and the trauma memory and to restructure the extensive fear network present among victims with PTSD, where many internal and external cues activate the trauma memory and accompanying physiological and emotional responses (Resick, Nishith, Weaver, Astin, & Feuer, 2002). Multiple studies strongly support the efficacy of PE in treating rape-related PTSD (Foa et al.,1999; Foa, Rothbaum, Riggs, & Murdock, 1991; Resick et al., 2002).

Another efficacious intervention for rape victims is cognitive processing therapy (CPT). The focus of CPT is to first address maladaptive trauma-related beliefs such as denial of the severity of the trauma and self-blame for the rape. "Then the focus shifts to over generalized beliefs about oneself and the world" (Resick et al., 2002, p. 867). For example, rape victims often feel intense guilt after being raped, leading to beliefs that they could have prevented the rape or that they were somehow personally accountable for the rape's occurrence (Nishith et al., 2005). The goals of this method of treatment are accomplished primarily through cognitive restructuring (focused on changing distorted trauma-related beliefs). Written trauma accounts can also be used to identify and process distorted trauma-related cognitions. Research supports that CPT is beneficial in effectively relieving PTSD symptomatology among rape victims, including victims with chronic symptoms (Nishith et al., 2005; Resick & Schnicke, 1992; Resick et al., 2002).

Due to the chronic symptoms many rape victims face, the development of several interventions to assist in recovery is essential. The most effective current treatments are cognitive-behavioral, including PE and CPT. The results post-treatment

are very promising, even proving beneficial to those victims who have suffered in silence for years with chronic psychological problems. However, these treatments are only effective if the victim seeks out these services.

Help seeking among sexual assault victims

The long-term psychological impact of sexual violence warrants immediate medical and psychological support. While several clearly effective treatments have been developed to support the recovery of rape victims, the question remains regarding whether these services are utilized by the women who need them. Victims of sexual assault take a risk when seeking help; they must have faith in the community support of health care providers for positive outcomes from a very traumatic situation. Four formal avenues for seeking help are available for sexual assault victims: emergency services, health care providers (e.g., primary care physicians, gynecologists), mental health providers and spiritual advisors (e.g., psychiatrists, psychologists, social workers, clergy), and rape crisis centers.

Emergency services. When a rape victim walks into the emergency room of a local hospital, she should expect immediate medical support to address physical injuries and medical concerns post-assault. Indeed, women who have been raped are urged to seek medical attention. However, not many women take this first critical step. In fact, Tjaden and Thoennes (1998) found that about 65% of women who were physically injured during a rape did not seek medical care. More alarmingly, Resnick and colleagues (2000) estimate that 4,322,520 adult women in the U.S. never received post-rape medical treatment. In a study of 360 women utilizing emergency services at one urban hospital, some 97 (27%) had a history of sexual assault; fewer than half of these

victims (43%) sought medical care for this experience (Feldhaus et al., 2000). Even among those who sought care in the emergency department after being sexually assaulted, 22% did not tell the attending physician they sought care because of a rape. Community and college samples suggest that even fewer women seek out emergency care. For example, Resnick and colleagues (2000) found that about 26% of women who had been raped sought emergency medical care; of these, just over half (59%) told the medical examiner that they had been raped.

In addition, those sexual assault survivors who do seek medical treatment may receive care that *only* addresses the physical issues and does not attend to the psychological concerns of sexual assault victims. For example, Eckert, Sugar, and Fine (2004) evaluated 662 sexual assault victims treated at one urban hospital between January 1997 and September 1999. The obstetrics and gynecology residents conducting sexual assault examinations in the emergency room tended to focus their interviews on the victims' use of alcohol or other substances, impairment of the victim due to substances, and the physical trauma associated with the rape, and did not discuss the mental health effects of a sexual trauma.

These interactions with emergency health services could be perceived by many assault victims as negative, which has a tendency to prolong recovery (Ahrens et al., 2007). Worse still, with the focus being solely on the victim's physical presentation in the emergency room, any line of questioning regarding the assaulted woman's behavior, choice of attire, or reluctance to be examined create an impression that the victim herself is responsible for the rape, likely inhibiting further help seeking from other sources.

Health care providers. Health care providers (HCPs), including both primary care physicians and specialists (e.g., obstetrician gynecologists), are another formal avenue for seeking help after rape. As previously noted, sexual assault survivors tend to have poor overall health and perceive their overall health as poorer than non-victims. They also experience somatic symptoms with greater frequency and intensity than non-victims. These factors lead to an increased rate of rape victims visiting HCPs compared to non-victims (Waigant et al.,1990; Conoscenti & McNally, 2006). Indeed, Kimerling and Calhoun (1994) note that "physicians may be more likely than psychologists to encounter sexual assault victims in their practices" (p. 333). In their research, they found that over the course of one year post-assault, use of medical care resources drastically increased.

However, research suggests that sexual assault survivors are not asking for help with their trauma, and most HCPs are missing the cues to ask more questions. For example, Caralis & Musialowski (1997) note that although 68% of victims they studied reported that they would be able to spontaneously discuss the assault with their HCPs, only 12% had been asked about it, and, of these, only 20% were given further assistance by their HCPs. The authors suggest that HCPs may be overlooking other signs of SA because they only look for "black eyes and broken bones" (p. 1079).

Similarly, Littleton, Berenson, and Radecki Breitkopf (2007) found that only 48% of a sample of over 900 low income women reported that they had ever been screened by a HCP for a history of sexual violence, despite the fact that the women were recruited from a women's health clinic that had a policy of universal screening. Additionally, among those who were screened for a history of sexual assault, the HCP

focused primarily on the risks of sexually transmitted disease and unwanted pregnancy rather than the emotional and psychological effects. In fact, a mere 11% of participants reported that they were provided information about the psychological and emotional effects of rape and resources available to help them.

HCPs tend to be reluctant to assess for sexual assault for various reasons; some liken it to opening "Pandora's box" – taking the physicians' time and resources to be present in legal proceedings, for example; others are concerned with causing unnecessary distress to their patients; and some fear inability to provide essential support to their patients (Sugg & Inui, 1992). However, Littleton and colleagues (2007) noted that among women who had been screened for a history of sexual violence, a mere 6% felt even moderately uncomfortable with the discussion. Similarly, Sugg and Inui (1992) found in a study of patient and physician attitudes regarding sexual violence that while physicians felt unable to provide valuable interventions for their patients and thus did not inquire about assault history, patients themselves viewed their HCP as a potential helpful resource following sexual violence and did not perceive discussions of sexual violence negatively. Finally, Friedman and colleagues (1992) stated that 90% of respondents in their research felt that their primary care physician could assist with recovery from sexual assault, but only 6% of respondents had been specifically asked about their sexual assault history.

In addition, relying on the victim to report spontaneously to a HCP will not lead to much success in starting a meaningful conversation about treatment options and recovery because very few women spontaneously disclose these experiences. For example, Ahrens and colleagues (2007) found that as few as 5% of rape victims

disclosed to a physician. Littleton (2010) found that of 340 college SA victims, only 9% had told a HCP about the assault. The bottom line is that, though health care providers may be visited more by women post-rape, they do not often request support specifically for the trauma; those who do ask for help are not receiving assistance in coping with the emotional and psychological effects of sexual violence and are instead receiving only physical and medical information.

Mental health professionals or spiritual advisors. A third formal means of obtaining care is through direct interaction with mental or spiritual HCPs. Considering the long-term psychological effects of sexual assault on women, one would assume that mental HCPs, including spiritual or religious sources, would be a frequently utilized means of support for rape survivors. However, this is not the case. Despite having very significant psychological symptoms, rape victims do not seek mental health care in the year post-assault any more often than non-victims do (Kimerling & Calhoun, 1994). Indeed, Kimerling and Calhoun (1994) found that while most rape victims increased HCP visits during the year post assault, there was no parallel increase in visits to mental health professionals. In fact, it is estimated that only between 16 and 20% of rape victims ever receive therapy post-assault (Beebe, Gulledge, Lee, & Replogle, 1994; Golding, Siegel, Sorenson, Burnam, & Stein, 1989; Roy-Byrne et al., 2003). Among college students, the rate of reporting sexual assault incidents to therapists is slightly lower. Littleton (2010) found that among 340 college rape victims, only 13% had told a therapist or counselor about their sexual assault experience.

Disclosure to a clergy member is also much lower than one might expect; typically only 1 to 4% of rape victims confide in a priest, minister, or other spiritual or

religious leader (Ahrens et al., 2007; Golding et al., 1989; Littleton, 2010). In fact, Littleton (2010) found that it was more common for the victim to disclose the rape experience to a stranger than to a clergy member (2.4% as compared to 1.5%).

Rape crisis centers. Finally, rape crisis centers can provide a formal means for obtaining support after rape. Rape crisis centers can provide victim support and advocacy services, as well as counseling, in a safe environment (Welch & Mason, 2007). Campbell (1998) notes that most United States communities have rape crisis centers complete with community-based advocates who assist victims with their interactions in the medical, legal, and mental health systems after the trauma of rape.

Rape crisis centers, however, are not frequently the "first stop" for victims of sexual assault; instead they are often referral based, either from the hospital (especially in the case of centers that are co-located with hospitals), another HCP, or a friend or family member of the victim. Beebe and colleagues (1994) found that none of the 44 women in their research who had experienced rape or attempted rape sought counseling at a rape crisis center. Of 447 respondents to Golding and colleagues' (1989) study of sexual assault victims and use of community resources, a mere 1.9% utilized the services of a rape crisis center.

It is clear that, despite the fact that the traumatic effects of sexual assault are so devastating, few victims are seeking and obtaining the help they need, either in the immediate aftermath of the assault or in the long-term. Primary health care systems provide little support and information about the psychological effects of sexual assault, and infrequently screen patients for these experiences. In addition, victims do not frequently spontaneously disclose such experiences to formal support sources.

Instead, if victims tell anyone, they disclose to informal sources (e.g., friends, family, significant other, etc.). Indeed, between 75 and 83% of victims who chose to tell someone about their assault report that they disclosed to an informal source (Ahrens et al., 2007; Littleton, 2010). In order to promote prompt mental health care and other means of support post-sexual assault, it is important to pursue alternative ways to reach this population.

Online mental health services

One potential way to provide care to victims of sexual assault is through Internet-based therapeutic interventions. Online mental health care interventions are a relatively new development, but are a burgeoning area of growth. Alleman (2002) notes, "in 1995, Martha Ainsworth went searching for a therapist on the Internet because her travel requirements made it difficult to attend face-to-face appointments. At the time, she found fewer than a dozen sites offering online therapy…" (p.199). She later founded Metanoia, a nonprofit comprehensive resource for locating mental health Web sites. In contrast to Ainsworth's search in 1995, this site provided links to nearly 1,000 sources providing online therapy in 2000.

Although the history of online resources for mental health care interventions is relatively short, the potential for their development has existed for decades. In the late 1960s, a software developer named Joseph Weizenbaum created ELIZA, a piece of software he used to mimic the attributes of a Rogerian therapist (Anthony & Goss, 2003). The purpose was to prove that computers could "convincingly imitate an actual person" (Anthony & Goss, 2003, p. 19). Amazingly, ELIZA (despite having minimal language capability) successfully developed a therapeutic alliance with its users and

they continued to utilize the resource even after they were informed that ELIZA was, in fact, just a software application on a computer.

The growth of sites offering online therapy and mental health support is paralleled by a comparable increase in individuals who are seeking information or social support online. The most frequently-sought types of mental health assistance are for self-help programs, mutual help (e.g., online support groups), and psycho-education (Chang, 2005). Among college students, Escoffery and colleagues (2005) found that 74% of the 743 undergraduate students they surveyed had received health information from an online source at some point and over 40% reported performing frequent Internet searches for health information. Among those surveyed, 27.6% sought information online about "mental health issues," and 28.3% sought information on "sexual health" (Escoffery et al., 2005, p. 186).

In addition to increases in the availability of information and support, as previously mentioned, Internet-mediated therapy is a growing area. With the explosion of Web-based services and emerging technology in recent years, Internet-mediated therapy may be an overlooked efficacious resource for sexual assault survivors to obtain care. Indeed, an informal study conducted by Metanoia among those who accessed services through their site indicated that 90% of the responding online clients felt they benefitted from e-therapy. Many of the respondents "…also indicated they would not initially have sought face-to-face counseling" (Alleman, 2002, p. 199). Interestingly, nearly 65% of those who initiated help via online services listed on the Metanoia site eventually followed up with traditional face-to-face care.

With the increase in Internet usage for health-related concerns and the generally positive response sites such as Metanoia are already receiving, it seems only natural to pursue methods of providing support to rape trauma victims. In fact, current research supports the use of online treatment of trauma-related mental health problems. Lange and colleagues (2000) developed a method to conduct treatment among trauma victims, which they called "Interapy." It combines "three main elements: self-confrontation (exposure to painful stimuli), cognitive reappraisal, and social sharing" (Lange, Rietdijk, Hudcovicova, van de Ven, Schrieken, & Emmelkamp, 2003, p. 908). A pilot study of this program among college students (n = 20) who had experienced a trauma or a difficult experience (e.g., divorce) supported that after ten 45-minute sessions over a period of five weeks, the participants improved significantly; 19 of the 20 were clinically recovered post-treatment (Lange et al., 2000).

A second trial, with similar student-participants, was conducted a year later (Lange, van de Ven, & Emmelkamp, 2001). Again, PTSD symptoms declined with greater consistency among the experimental group as compared to a waiting list. In 2003, Lange and colleagues conducted a third trial with a somewhat larger community sample (n = 69). After five weeks of bi-weekly online assignments (just as in the pilot study) post-trauma symptoms such as depression and avoidance were greatly reduced among participants versus individuals in the wait-list control condition. Knaevelsrud and Maercker (2007) replicated the "Interapy" research by Lange and colleagues (2000; 2001; 2003) with 96 individuals with PTSD over a 5-week period. The results from baseline to post-treatment and 3 months post-treatment showed significant improvement in the severity of PTSD symptoms and other psychopathology in the

treatment group. When compared to a waiting list control condition, co-morbid depression and anxiety were also reduced significantly among treated individuals. These benefits were maintained at an 18 month follow-up (Knaevelsrud & Maercker, 2010). At the end of their study, the authors also conducted an exit survey, in which participants were asked to evaluate their experience in being treated via the Internet. Participants' assessments were overwhelmingly positive, with 86% describing the therapy experience as "personal," 76% reporting positive attitudes toward online intervention over traditional, face-to-face therapy, and 60% reporting no negative feelings about not seeing a therapist face-to-face (Knaevelsrud & Maercker, 2007).

Hirai and Clum (2005) developed a self-help program to reduce trauma-related consequences (SHTC), which consisted of eight weeks of online interaction. The program entailed "…information; relaxation training including breathing retraining, muscle relaxation, and imagery-induced relaxation; cognitive restructuring; and exposure exercises" (p. 633). Although the sample size was small (n = 33), the findings were promising; the self-help trainees had a greater increase in coping skills and self-efficacy than a wait-list control group. Finally, Litz and colleagues (2007) conducted a partially online treatment for service members who suffered PTSD as a result of the September 11th attacks on the Pentagon or from combat in Iraq or Afghanistan. The purpose was to compare Internet-based supportive counseling to a self-managed CBT program online. Litz and colleagues (2007) found that at the 6-month follow-up post treatment, those who had completed the self-managed CBT program endorsed approximately 50% fewer PTSD symptoms than those who had completed an Internet-based supportive counseling program.

With the level of success shown in reducing distress among trauma victims utilizing several different online support methods, it seems likely that those who have experienced sexual assault would also benefit from similar Internet-based support channels. Indeed, there are a number of potential advantages to an online approach for victims of trauma, including sexual violence. Due to the stigmatization, feelings of shame or embarrassment, and estrangement or isolation from the rest of the world that are often associated with traumatic experiences such as rape, and given the fact that these feelings coincide with a greater need for social support, the Internet can be an ideal resource for SA survivors. A Web-based therapist can provide a "protected environment where participants can easily control and regulate the degree of intimacy they want to share without the fear of real-life judgment, rejection, or devaluation" (Knaevelsrud & Maercker, 2007, p. 14). Additionally, some evidence exists that people are less inhibited when discussing traumatic experiences online as opposed to face-to-face with a therapist (Lange et al., 2001).

Another potential benefit of online treatment for trauma victims is the allowance for clients to "have the ability to receive therapy in the comfort and familiarity of their own location, avoiding the sometimes intimidating experience of a practitioner's waiting and consulting rooms" (Anthony & Goss, 2003, p. 17). Additionally, rural or remote-based clients or those with limited mobility will also be able to obtain care (Lange et al., 2000). Litz and colleagues (2004) note that another advantage of Internet-based trauma interventions, especially self-guided CBT, is that it "…respects individuals' capacity to help themselves, at their own pace, once they learn strategies that have been shown to be helpful for individuals exposed to trauma" (p. 629). Finally, advances

in technology can allow a combination of online and face-to-face therapeutic interventions by way of video chat or video / voice call techniques (e.g., Skype, AdobeConnect, etc.).

Aims of Research

While a number of potential advantages of online treatment for trauma have been proposed, individuals' attitudes toward online trauma treatments are understudied. However, it is obvious that for an online trauma treatment to be effective, individuals need to be willing to seek out and utilize them. This issue is particularly salient in the arena of sexual trauma as one in three women may experience sexual assault of some kind in their lifetime. Considering the damaging psychological effects of this trauma, it is essential to determine not only what types of treatment would be effective, but also what types of treatment women would actually use. Since so few women actively seek out mental health services after experiencing rape and other forms of sexual assault, an important step is to determine what forms of treatment seem acceptable.

Thus, the primary focus of this thesis was to examine the attitudes of college women toward online therapy in general and online therapy for sexual assault in particular. Specifically, I examined women's attitudes toward online interventions as compared to their attitudes toward traditional face-to-face therapy. In addition, I evaluated college women's comfort with seeking online interventions as compared to face-to-face therapy, as well as their perceived advantages and disadvantages of online interventions. Finally, I evaluated whether sexual assault victims differ from non-victims in their attitudes toward in person and online interventions. The specific aims of this thesis were:

Aim One: Examine if women's attitudes toward online interventions are positive relative to face-to-face therapy

Aim Two: Evaluate women's level of comfort with seeking online interventions, including online interventions for sexual assault, as compared to their comfort with seeking in-person interventions.

Aim Three: Assess women's perceived advantages and disadvantages of online interventions

Aim Four: Compare victims' attitudes with non-victims' attitudes toward online interventions, including online interventions for sexual assault.

CHAPTER II: Method

Participants

A total of 495 women over the age of 18 enrolled as students at the University of Houston, a large, ethnically diverse university in the southeast U.S., were recruited from the psychology department participant pool to complete an online survey about their attitudes toward online counseling. Participants received course credit for participating.

Measures

Victimization items. Two screening items from the Revised Sexual Experiences Survey (SES; Koss et al., 2007) were administered to assess unwanted sexual experiences since the age of 14 (see Appendix B). One of the items assessed completed experiences of unwanted sex including oral, anal, or vaginal intercourse or object penetration that occurred through the use of force, threat of force, or when the victim was unable to resist due to incapacitation from use of alcohol or other substances. The second item assessed experiences of attempted nonconsensual sex including oral, anal, or vaginal intercourse or object penetration that occurred through the use of force, threat of force, or when the victim was unable to resist due to incapacitation from use of alcohol or other substances.

Help-seeking following sexual assault. Two survey items were developed to assess the likelihood that participants would seek help either through a counselor or therapist or an online intervention for a sexual assault experience (see Appendix B). Participants were asked how likely they would be to use each resource following a sexual assault on a five point Likert-type scale anchored by 1 (*very unlikely*) and 5 (*very likely*).

Comfort levels with mental health resources. Three survey items assessed the level of comfort participants would have with utilizing various mental health resources, including online resources for a sexual assault experience (see Appendix B). Participants were asked how comfortable they would be with utilizing each resource on a five point Likert-type scale anchored by 1 (*very uncomfortable*) and 5 (*very comfortable*).

Attitudes toward online mental health interventions. Participants completed six items about their attitudes toward online interventions, including how those attitudes compared to traditional face-to-face counseling with a therapist (see Appendix B). Items assessed participants' beliefs regarding the helpfulness of online interventions, beliefs regarding their ability to open up online, and preferences for online versus in-person interventions. For each item, participants rated the extent to which they agreed with each statement on a 5 point Likert-type scale anchored by 1 (*strongly disagree*) and 5 (*strongly agree*).

Advantages and disadvantages of online intervention. Two additional open-ended items were administered to assess participants' perceived advantages and disadvantages of online interventions (see Appendix B). Specifically, participants were asked to describe what they considered to be the primary advantage and primary disadvantage of online mental health interventions.

Experiences with using mental health resources. Finally, participants' prior experiences with utilizing mental health resources were assessed. Three yes-or-no questions regarding participants' use of traditional mental health counseling services,

use of the Internet to research mental health-related issues, and use of online mental health care were administered (see Appendix B).

Procedures

Participants were recruited through an announcement on the psychology department participant pool management website. The information potential participants received stated they would be asked to complete a brief, confidential online survey about their attitudes toward different mental health treatments including online treatments, any previous experience receiving mental health services, and negative sexual experiences they have had. Participants were excluded if they were male or under 18 years of age. Participants' online identification numbers were collected to award course credit, and were removed prior to processing the data.

Participants were provided with information about how to obtain counseling through local free and low-cost sources in order to address possible concerns that asking about a history of sexual assault might exacerbate distress (see Appendix D). Newman and Kaloupek (2009) emphasize the importance of providing additional protection for participants in trauma research who may be particularly vulnerable to distress, such as those with PTSD. However, it should be noted that most people do not perceive participation in surveys about experiencing rape or sexual violence as stressful. In addition, research has consistently supported that for those who feel some distress, nearly all agree that the benefits of such research far outweigh the risks of participating, and the very aspects of research that participants find the most stressful are also cited as the most beneficial (Becker-Blease & Freyd, 2006; Edwards et al., 2009; Newman & Kaloupek, 2009). Indeed, in a study conducted by Walker and

colleagues (1997) about sexual and physical victimization, only 13% of 330 participants felt more distressed than they anticipated, yet 76% stated that if they had known in advance how they would feel, they still would have participated in the research. Even among recent physical and sexual assault victims (2 weeks to 6 months post-assault), most (62-68%) did not perceive participating in trauma research to be distressing and only 5% stated they would be unwilling to undergo a similar assessment again (Griffin, Resick, Waldrop, & Mechanic, 2003). Finally, among college women who participated in a sexual assault victimization survey, only 4% of the total sample (*n* = 1,056) endorsed experiencing a negative emotional response as a result of participating in the research, and none of the victimized respondents who had experienced negative emotions stated they would not have chosen to participate in the study had they known the topic in advance (Edwards et al., 2009).

Participants consented to participate electronically following reading the consent form (see Appendix C). After consenting, participants completed an online questionnaire regarding their attitudes and experiences with mental health treatment, including online counseling. Next, they were screened for experiences of attempted and completed sexual assault. The survey was approved by the Institutional Review Board (IRB) of the University of Houston (see Appendix E). Because the current thesis involves analysis of previously collected data, the study qualified for exempt status under the IRB at East Carolina (see Appendix A).

Analysis Plan.

Aim One: Examine if women's attitudes toward online interventions are positive relative to face-to-face therapy. To evaluate aim one, participant scores on

6 items specifically pertaining to attitudes toward online interventions were evaluated by comparison to the midpoint of the Likert-type scale. Items included statements pertaining to how helpful participants feel getting help online would be, preferences for obtaining feedback from a therapist online, how able the participant feels she would be to discuss personal issues with a therapist online, and level of inhibition with discussing issues by writing online. Those items worded in such a way that a higher score on the Likert-type scale equates to a more positive perception of online interventions (e.g., "If I had the choice between going to see a therapist about a personal issue, or getting help online, I would probably choose online,") were examined by one-sample *t*-test to evaluate if the mean was significantly higher than the midpoint of 3. Those items worded in such a way that a lower score on the Likert-type scale indicates a more positive perception of online interventions (e.g., "Getting help online could never be as helpful as seeing a therapist in person.") were examined by one-sample *t*-test to evaluate if the mean was significantly lower than the midpoint of 3.

Aim Two: Evaluate women's level of comfort with seeking online interventions, including online interventions for sexual assault as compared to their comfort with seeking in-person interventions. One pair of items directly contrasted comfort levels with seeking help online with seeking help face-to-face after sexual assault, and one pair of items contrasted participants' likelihood of seeking therapy online as compared to face-to-face after sexual assault. Because these items used the same verbiage to ask about comfort levels and likelihood of using either online interventions or face-to-face therapy, the responses were directly compared. To evaluate aim two, participant responses to the two items pertaining to comfort levels

with seeking therapy either online or face-to-face were compared, as were the two items regarding the likelihood participants will seek help from either a therapist in a traditional face-to-face setting or from an online intervention. The scores for comfort talking to a therapist face-to-face as compared to comfort using an online intervention were evaluated using a paired *t*-test to determine if there were significant differences in participants' reported comfort with seeing a therapist or using an online intervention. Additionally, the scores for likelihood of talking to a therapist face-to-face as compared to likelihood of using an online intervention were evaluated using a paired *t*-test to determine if there were significant differences in participants' reported likelihood of seeing a therapist or using an online intervention.

Aim Three: Assess women's perceived advantages and disadvantages of online interventions. To address aim three, a specific procedure for coding qualitative data was used. All responses were first reviewed by the author in order to develop categories in which to group responses. Next, all responses were coded into one of the specified categories by the author. Subsequently, three trained undergraduate raters each coded 100 advantage responses and 100 disadvantage responses to evaluate inter-rater reliability. Rate of agreement between each undergraduate rater and the author were then calculated and averaged. The resulting categories were analyzed to determine the most commonly perceived advantages and disadvantages of using online interventions.

Aim Four: Compare victims' attitudes with non-victims' attitudes toward online interventions for sexual assault, including comfort and likelihood of using online interventions. To evaluate aim four, a direct comparison of responses for the

same 6 items assessing attitudes toward online interventions utilized in aim one were analyzed. In addition, the items utilized in aim two to assess likelihood of using an online sexual assault intervention and comfort with corresponding with a therapist online about a sexual assault were evaluated. Specifically, using the data from the 2 Revised SES items, responses of women who endorsed an experience of completed or attempted sexual assault were compared to those who did not endorse such an experience. Independent sample *t*-tests were utilized to assess differences between victims and non-victims on these items.

CHAPTER III: Results

Four hundred ninety-five eligible women consented to participate during the study period. Of the 495 participants, only 2 did not respond to all the survey items, providing a response rate of 99.6%. Of the participants, 35% (*n* = 171) screened positively for sexual assault (completed or attempted rape). Women who reported an experience of completed rape comprised 64% (*n* = 109) of those who screened positively for sexual assault and 36% (*n* = 62) reported experiencing an attempted rape only. It should be noted that 85% (*n* = 93) of the women who reported experiencing rape also reported at least one experience of attempted rape; however, it is unclear if these were on separate occurrences or if the perpetrator attempted one form of sexual assault but succeeded in another form (i.e., attempted anal or vaginal intercourse but successfully perpetrated oral sex). Thus, examining women's most severe sexual assault experience, 22% reported experiencing a completed rape and 12.5% reported experiencing an attempted rape.

Although demographic data were not collected for this specific sample, research conducted at the same university one and two semesters prior to the data collected for this research also collected demographic data. It can be estimated that the sample obtained for this research was very similar. In the prior research, a sample of 477 women was recruited from the same psychology department participant pool. The mean age of these women was 22.8, ranging from 18-58. Ethnicities reported were as follows: 33.8% White/European American, 17.2% Latina, 14.5% African American, and 22% Asian American. The remaining 12.5% were multi ethnic, other, or did not indicate

ethnicity when completing demographic data (Littleton, personal communication, November 22, 2010).

Participants were asked if they had utilized the services of a counselor before, to which 38% (*n* = 190) responded in the affirmative. Additionally, 57% (*n* = 280) had sought information online for help with a mental health issue, and 5% (*n* = 27) had either posted to or participated in an online forum specifically for a mental health issue.

Aim One: Examine if women's attitudes toward online interventions are positive relative to face-to-face therapy.

The data obtained from participant responses on the 6 items associated with attitudes toward online interventions were analyzed by one-sample *t*-tests to assess if the mean score of each item differed significantly from the midpoint of the Likert-type scale of 3. The findings of aim one (see Table 1) supported statistically significant results for all but one item.

Table 1

Attitudes toward Online Interventions

Item	*M (SD)*	*t*
Online interventions can be as helpful as in-person interventions.	2.74 (1.12)	5.16*
I would be more able to open up about personal issues if I could express my feelings in writing online.	3.05 (1.26)	0.93
If I had the choice between going to see a therapist about a personal issue or getting help online, I would probably choose online.	2.51 (1.31)	8.33*
Getting help online could never be as helpful as seeing a therapist in-person.	3.44 (1.16)	8.45*
I would like getting feedback from a therapist online.	3.17 (1.25)	2.96*
I would be able to discuss personal issues with a therapist online.	3.16 (1.24)	2.88*

* $p < .005$.

On the items “Online interventions can be as helpful as in-person interventions,” “If I had the choice between going to see a therapist about a personal issue or getting help online, I would probably choose online,” and “Getting help online could never be as helpful as seeing a therapist in-person,” the associated mean scores (*M* = 2.74, *M* = 2.51, and *M* = 3.44, respectively) are statistically significant in the direction indicating an overall negative perception of online interventions among college students. The mean scores for the items “I would like getting feedback from a therapist online” and “I would be able to discuss personal issues with a therapist online” (*M* = 3.17 and *M* = 3.16, respectively) are statistically significant in the direction indicating a positive perception of online interventions.

Aim Two: Evaluate women’s level of comfort with seeking online interventions, including online interventions for sexual assault, as compared to their comfort with seeking in-person interventions.

The data obtained from the 5-point Likert-type scale for Pair 1, regarding comfort levels of seeking therapeutic intervention online or in-person, were analyzed using a paired *t*-test to determine if significant differences existed between comfort with online interventions and comfort with traditional, in-person therapy. Likewise, the data obtained for Pair 2, regarding likelihood of seeking help online versus the likelihood of seeking help from a face-to-face therapist, were analyzed using a paired *t*-test. The results (see Table 2) show statistically significant differences between both pairs of items.

Table 2

Comfort with Online as Compared to In-person Interventions and Likelihood of Using Each

Item	*M* (*SD*)	*t*
How comfortable would you feel talking to a therapist or counselor about an experience of sexual assault?	2.84 (1.26)	3.46*
How comfortable would you feel using an online intervention for women who experienced sexual assault?	3.10 (1.25)	
If you experienced a sexual assault, how likely would you be to see a counselor or therapist?	3.53 (1.36)	8.50*
If you experienced a sexual assault, how likely would you be to utilize an online intervention for sexual assault victims?	2.94 (1.35)	

* $p < .001$.

The first pair, analyzing comfort with online interventions as compared to in-person interventions, supported that participants reported they would be significantly more comfortable using an online intervention for sexual assault as opposed to seeing a therapist face-to-face, t (493) = 3.46, $p < .001$. The second pair, analyzing likelihood of using in-person therapy as compared to online interventions, supported that participants reported being significantly more likely to see a therapist face-to-face following sexual assault than using an online intervention, t (493) = 8.50, $p < .001$.

Aim Three: Assess women's perceived advantages and disadvantages of online interventions.

The data resulting from the open-ended responses regarding women's perceived advantages and disadvantages of online interventions were analyzed by the principal investigator and subsequently evaluated by three trained undergraduate raters for inter-

rater reliability. Each response was coded into one of eleven advantage categories and one of thirteen disadvantage categories developed by the author. Advantage categories included: anonymity/security of identity/confidentiality; comfort in the ability to open up in an online discussion without having to verbalize their feelings aloud; not being faced with the shame or judgment associated with office settings; not having a face-to-face encounter; and the convenience of utilizing online resources. The average rate of agreement among coders was 86.5% for advantage responses.

The findings of the perceived advantages (see Table 3) revealed that 33% (*n* = 164) of participants felt that a primary advantage of utilizing online interventions is that it provides a means of obtaining help anonymously, while protecting the victim's identity and confidentiality. Other frequently-identified advantages included clients' comfort with engaging in an online discussion (15.8%, *n* = 78), convenience of utilizing online interventions (12.9%, *n* = 64), and not having a face-to-face encounter with a therapist (8.1%, *n* = 40).

Table 3

Perceived Advantages of Online Interventions

Category	%	(*n*)
Anonymity/security of identity/confidentiality	33.1	(164)
Comfort with opening up online/not having to verbalize feelings aloud	15.8	(78)
Convenience of utilizing online resources	12.9	(64)
Not having a face-to-face encounter	8.1	(40)
Not being faced with the shame or judgment associated with office settings	6.7	(33)
Discretion associated with online interventions/no one has to know	1.2	(6)
Ease of use/accessibility/cost-effectiveness of online resources	5.5	(27)
Having access to a community of support/others in the same situation	1.4	(7)
Wealth of information that can be provided instantaneously to the victim	2.0	(10)
No advantage	3.4	(17)
Other (unanswered, noncompliant with question, did not make sense)	9.7	(48)

Disadvantage categories included: impersonal/lacking a human element; lack of nonverbal communication (that can be interpreted by both the therapist and the client); possibility of receiving “bad information” about coping with an experience of sexual assault; discomfort in the ability to open up in an online discussion or inability to express feelings in writing; and not being able to confirm the credentials of the therapist/being unsure the person receiving the information is authorized to help. The average agreement between coders for disadvantage categories was 83.2%.

The findings of the perceived disadvantages (see Table 4) revealed that a majority of participants (51.6%, *n* = 255) felt that a primary disadvantage of utilizing online therapeutic resources was that it removed the “human element” and depersonalized the experience of getting help from an empathic human provider that

would otherwise be available in traditional therapeutic settings. Other identified disadvantages included the possibility of encountering fraudulent therapists who lack proper credentialing or concerns about confidentiality (10.5%, *n* = 52) and the lack of nonverbal communication between client and therapist (6.3%, *n* = 31).

Table 4

Perceived Disadvantages of Online Interventions

Category	%	(*n*)
Impersonal/lack of human element	51.6	(255)
Inability to confirm the credentials of the therapist/uncertain the person receiving the information is authorized to help/possible breach of confidentiality and protection of personal information	10.5	(52)
Lack of nonverbal communication (neither therapist nor client can interpret)	6.3	(31)
Possibility of receiving "bad information" about coping with an experience of sexual assault	2.0	(10)
Discomfort in the ability to open up an online discussion or inability to express feelings in writing	2.8	(14)
Lack of client trust in the therapeutic relationship/client's lying or hiding the truth	4.0	(20)
Online interventions are untested/unreliable/not helpful	5.1	(25)
Support provided online is too generalized/not individually-tailored treatment	1.4	(7)
Miscommunication/feedback confusion or misinterpretation/delay in response between client and therapist	3.6	(18)
Feeling that the help is not real or feels superficial	2.0	(10)
Technical difficulties associated with computer use that would prevent care	0.8	(4)
No disadvantage	2.4	(12)
Other (unanswered, noncompliant with question, did not make sense)	7.3	(36)

Aim Four: Compare victims' attitudes with non-victims' attitudes toward online interventions for sexual assault, including comfort and likelihood of using online interventions.

A total of 171 women (35%) screened positively for a history of rape or attempted rape. The data derived from the 5-point Likert-type scale on 6 items assessing attitudes toward online interventions were analyzed using independent sample *t*-tests to assess for differences between the responses of the victimized participants and those who did not endorse an experience of rape or attempted rape (see Table 5).

Table 5

Attitudes of Victims Compared to Non-victims toward Online Interventions

Item	Victims (n = 171) M (SD)	Non-victims (n = 322) M (SD)	t
Online interventions can be as helpful as in-person interventions.	2.82 (1.16)	2.70 (1.10)	1.22
I would be more able to open up about personal issues if I could express my feelings in writing online.	3.14 (1.23)	3.00 (1.27)	1.15
If I had the choice between going to see a therapist about a personal issue or getting help online, I would probably choose online.	2.68 (1.35)	2.42 (1.28)	2.18*
Getting help online could never be as helpful as seeing a therapist in-person.	3.46 (1.12)	3.43 (1.18)	0.25
I would like getting feedback from a therapist online.	3.23 (1.27)	3.13 (1.24)	0.90
I would be able to discuss personal issues with a therapist online.	3.35 (1.18)	3.06 (1.26)	2.43*

* $p < .05$.

Victims were significantly more likely than non-victims to report that they would choose online support over traditional face-to-face therapy. Additionally, victims were significantly more likely to state they would be able to discuss personal issues with a therapist online than non-victims.

The same four items assessed in Aim Two were analyzed to identify any differences between the responses of victims and non-victims. To do this, independent sample *t*-tests were conducted to examine the comfort and likelihood of using face-to-face and online interventions among victims as compared to non-victims. The results of these tests are summarized in Table 6.

Table 6

Comparison of Victims' and Non-victims' Comfort with and Likelihood of Using Face-to-Face and Online Interventions

Item	Victims (n = 171) M (SD)	Non-victims (n = 322) M (SD)	t
How comfortable would you feel talking to a therapist or counselor about an experience of sexual assault?	2.78 (1.26)	2.88 (1.26)	0.78
How comfortable would you feel using an online intervention for women who experienced sexual assault?	3.21 (1.21)	3.03 (1.27)	1.52
If you experienced a sexual assault, how likely would you be to see a counselor or therapist?	3.33 (1.41)	3.64 (1.32)	2.38*
If you experienced a sexual assault, how likely would you be to utilize an online intervention for sexual assault victims?	2.91 (1.39)	2.96 (1.34)	0.39

* $p < .05$.

Non-victims were significantly more likely than victims to state they would seek the help of a therapist for support after sexual assault, t (491) = 2.38, $p < .05$. There were no significant differences between victims and non-victims on any of the other items.

CHAPTER IV: Discussion

The findings of this research reflect a mixed picture of positive attitudes toward some specific aspects of online therapeutic interventions but not others among undergraduate women. For example, participants tended to hold positive attitudes toward certain aspects of online interventions including receiving online feedback and believed that individuals would feel comfortable discussing personal issues online. However, they also tended to believe that online interventions were less efficacious than in-person interventions and expressed a preference for in-person therapy over online treatment. The qualitative responses by participants regarding what they found to be the most advantageous aspects of online interventions similarly supported that participants believed that the primary advantages were the ability to remain anonymous, protection of one's identity and confidentiality, being more able to open up in a personal discussion online rather than face-to-face, and the convenience of using an online method of support. Overwhelmingly, participants indicated that the primary disadvantage of online interventions was the lack of human touch or the impersonal nature of online interventions, as well as concerns about verifying the authenticity of the counselor who conducts the online therapy sessions.

However, it should be noted that while mean responses of participants tended to be close to the midpoint of 3 on the 5-point Likert-type scale, there was wide variability in ratings with the standard deviation across all responses exceeding 1.1 points. Indeed, between 27.9 and 49.1% of participants' responses to the eight items regarding attitudes toward online interventions was either a 4 or 5 on the Likert-type scale. The variable responses of respondents' opinions regarding using online interventions could

be due to one of several reasons. It is likely that online interventions are a good fit for some individuals, while less so for others. Some of the qualitative responses indicated that participants believed that certain types of individuals would be more likely to use online interventions, such as “shy people” or individuals who may be experiencing some form of agoraphobia. Additionally, because the vocabulary used in the survey questions was not elaborated upon, participants could have interpreted “online interventions” to mean anything from online forums to email exchange or Internet relay chat to video chat with a therapist. Because a wide variety of online support venues exist, and every indication is that the market is expanding even more, this may explain some of the variability in responses among participants. Furthermore, it may point to the ethical concerns raised by use of online support methods. Because the technology is advancing faster than ethical policies can keep up, a genuine concern for potential clients is the risk of violating confidentiality agreements, permitting unauthorized access to personal information, and allowing non-credentialed individuals to commit fraud at the expense of rape victims or other vulnerable groups.

Additional differences were noted between sexual assault victim and non-victim responses with victims reporting more positive attitudes toward online interventions overall. The fact that victims tended to report more positive attitudes toward online interventions suggests that those who have experienced a highly stigmatized and distressing event are more likely to prefer online support as a means to obtain help. Since rape trauma is known to produce PTSD symptoms in as many as half its victims, avoidant behavior is not uncommon among rape victims (Roy-Byrne et al., 2003). Anxiety, fearfulness, depression, and agoraphobia are also common post-assault

experiences (Boudreaux et al., 1998; Kilpatrick et al., 1981). It is likely that victims may prefer online treatment due to such lingering symptoms. Additionally, those who have experienced rape have something personal to talk about and may have very real concerns about discussing their experience with a counselor face-to-face due to the stigma regarding receiving psychological counseling, coping with the avoidant symptoms post-assault, or wishing to keep their victimization a secret from others. Indeed, according to Lebowitz and Roth (1994), the American culture indoctrinates women to believe that they are responsible for male aggression, to include sexual assault, and this may account for the self-blame that sexual assault victims often exhibit, as well as further limiting them from seeking help through traditional sources. Even when women find the courage to seek the help they need, disclosure to friends, family members, or other informal support sources causes a potential risk for victims if the confidant also subscribes to these cultural beliefs. This may also reflect the importance respondents placed on confidentiality, as it was the second most frequently identified disadvantage of using online interventions. Unfortunately, victim responses also indicated that, despite knowing support would be beneficial to them, many would not seek out the help of therapists in either online or in-person settings.

Limitations of research

Limitations of the current study should be acknowledged. First, the study involved a sample of college women. It is important to collect data on this issue from college women given that they are among an age group at high risk for becoming rape victims. However, college women may also hold more positive attitudes toward online interventions than other groups of women. College students are required to be

proficient at computer use for academic purposes, are quite typically engaged in the use of social networking sites and other modern forms of media, and may be more open than others to online resources as a means to obtain help (Metzger, Flanagin, & Zwarun, 2003). It also should be noted that as emerging technology is developed, views toward the Internet and all it has to offer are rapidly changing. The data collected for this research are over a year old and may already be somewhat obsolete in terms of providing an accurate representation of college women's views toward online interventions. As the Internet becomes more and more commonly used, its viability as a possible source of psychological help will only increase, and it is important that research attempts to keep pace with that growth. Another limitation with this particular sample was the lack of demographic data. While demographic data of a sample from the same participant pool website was obtained in previous research, no data were available for this specific sample of women. Thus, the extent to which attitudes differed among women of different age groups and ethnicities could not be evaluated.

As stated previously, another limitation of this research can be found in the wording of the survey itself. Using the term "online interventions" with little description of what that means leaves much interpretation to the respondents. The words "online interventions" could mean anything from a public forum to discuss mental health issues to one-on-one counseling with a therapist using a remote-access virtual private network; it could also mean a video chat session with a licensed therapist or simply exchanging email. Because the survey provided no elaboration on what exactly was intended by the term "online interventions," there is no way of knowing what each participant inferred by that statement when making their responses.

Implications and the way ahead

For-profit organizations such as Weight Watchers have understood the crucial development the Internet has offered their established community of support. Individuals seeking to lose weight may seek group-centered support either in-person at local centers or online based on personal preference. Therapeutic interventions for sexual assault trauma recovery can be approached similarly in that, based on the preference of the individual seeking support; the option for services online exists alongside traditional in-person treatment. Perhaps a natural progression for a victim of sexual assault would be to initiate services online during the difficult time when facing the outside world may be a daunting concept, but later she can pursue ongoing sessions at a therapist's office, especially considering over half of those who have previously used online services eventually seek face-to-face care (Alleman ,2002).

However, as previously stated, professional ethical guidelines and licensing laws have not advanced synchronously with the emerging technology. In 2005, a major contribution by *The Counseling Psychologist* attempted to address concerns about using online interventions for mental health by applying the 2002 American Psychological Association Ethics Code to these interventions (Chang, 2005). The contributors used the ethics code to better understand practical ways to assure confidentiality, avoid client harm, ensure one was practicing within his or her own jurisdiction, ensure that services were marketed effectively, and ensure that practitioners were competent and proficient with the online versions of treatment. It is almost indisputable that further technological advances and more possibilities for online therapy have occurred in the five years since those efforts were made. While

psychoeducation was the main focus of previous efforts to promote ethical considerations for online psychological resources, clearly addressing the confidentiality and qualification concerns of potential clients needs to be at the forefront of future attempts to merge the ethics code with Internet-based therapy. The Internet-based therapy explosion over the last decade was vast, diffuse, and largely unregulated. Even therapists who are licensed to practice in one state may receive queries for help from clients in other states, where the therapist is not properly credentialed. It would be a natural cause of concern for many potential clients to be wary of the way Internet-based therapists operate. In the Wiki-world of the Web, where contributions to purported knowledge networks are made by anyone in the public forum regardless of their actual expertise, it is imperative that ethical and regulatory guidelines are clearly established.

In addition to addressing the ethical concerns of online methods of providing psychological care, Barak, Klein, and Proudfoot (2009) stress the importance of clearly defining what the various forms of online interventions might be and what services are provided within each of the interventions. Due to the rapid expansion of Web-based interventions, many professionals have independently created methods and applications. With little communication between professionals about establishing standards (in terminology, functionality, etc.), the result is a plethora of various Internet-based therapy applications that could confuse the average Internet user. Barak and colleagues (2009) showed that even the labels given to the various products available can overwhelm the average Internet user, and they list terms such as, “web-based therapy, e-therapy, cybertherapy, eHealth, e-Interventions, computer-mediated interventions, online therapy (or counseling), and the like” (p. 5). The terminology alone

could mean anything from self-guided treatment to regular interaction with a licensed professional counselor. Rival sites may even use the same term to describe two different methods of treatment.

As we progress further into the technological world, future developers of online therapeutic interventions must consciously address the concerns raised by ethics and semantics, as well as provide ways to assure clients that what they see is what they get. To address some of the apprehension regarding confidentiality, the highest levels of security must be enabled on websites conducting online therapy. Clients who are concerned about the credentials of those who utilize online therapy sources can be put at ease by seeing the credentials of all therapists available on the site. Additionally, to ensure the therapist is licensed to practice in the state where the client lives, clients may be asked to select their home state first and have search criteria narrow available therapists by geographic location. Web-based authentication tools, such as providing account access with a secure username and password or ensuring digital signatures or certificate authorities can also ensure greater protection of clients' information. Those who miss the warmth of face-to-face contact could engage in remote face-to-face counseling through the use of digital video calls through Skype or other applications.

Online psychological interventions potentially have many benefits. The opportunity to reach clients who would not normally receive care due to remote location, social anxiety, or even the stigma of receiving help can potentially benefit greatly from access to a therapist online. As the results of this research indicate, however, the world of Web-based interventions still has a long way to go in order to ensure that more individuals seek and are given the help they need.

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Appendix A
East Carolina University Institutional Review Board Approval

EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board Office
1L-09 Brody Medical Sciences Building• 600 Moye Boulevard • Greenville, NC 27834
Office **252-744-2914** • Fax **252-744-2284** • **www.ecu.edu/irb**

Date: July 26, 2010

Principal Investigator: Sarah McCreight
Dept./Ctr./Institute: C/o Pam James
Mailstop or Address: 106 Pineridge Dr., Greenville, NC 27858

RE: **Exempt Certification** KX
UMCIRB# **10-0393**
Funding Source: Unfunded

Title: "Online mental health services: Do women view this as a viable treatment option for sexual assault?"

Dear Sarah McCreight:

On 7.22.10, the University & Medical Center Institutional Review Board (UMCIRB) determined that your research meets ECU requirements and federal exemption criterion #4 which includes research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects. ***NOTE: 1) This information must be existing on the date this IRB application is submitted. 2) The data collection tool may not have an identifier or code that links data to the source of the information.***

It is your responsibility to ensure that this research is conducted in the manner reported in your Internal Processing Form and Protocol, as well as being consistent with the ethical principles of the Belmont Report and your profession.

This research study does not require any additional interaction with the UMCIRB unless there are proposed changes to this study. Any change, prior to implementing that change, must be submitted to the UMCIRB for review and approval. The UMCIRB will determine if the change impacts the eligibility of the research for exempt status. If more substantive review is required, you will be notified within five business days.

The UMCIRB Office will hold your exemption application for a period of five years from the date of this letter. If you wish to continue this protocol beyond this period, you will need to submit an Exemption Certification Request at least 30 days before the end of the five year period.

Sincerely,

Chairperson, University & Medical Center Institutional Review Board

Cc: Heather Littleton, PhD

Appendix B
Survey on Online Counseling Attitudes

	Very unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Very likely
If you experienced a sexual assault, how likely would you be to see a counselor or therapist?	1	2	3	4	5
If you experienced a sexual assault, how likely would you be to utilize an online intervention for sexual assault victims?	1	2	3	4	5

	Very uncomfortable	Somewhat uncomfortable	Neither comfortable nor uncomfortable	Somewhat comfortable	Very comfortable
How comfortable would you feel talking to a therapist or counselor about an experience of sexual assault?	1	2	3	4	5
How comfortable would you feel using an online intervention for women who experienced sexual assault?	1	2	3	4	5
How comfortable would you feel corresponding in writing with a therapist/counselor over the Internet about a sexual assault experience if you were sure it was secure (encrypted)?	1	2	3	4	5

For each of the following statements, please rate the extent to which you agree or disagree.

	Strongly disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Strongly agree
Online interventions can be as helpful as in-person interventions.	1	2	3	4	5
I would be more able to open up about personal issues if I could express my feelings in writing online.	1	2	3	4	5
If I had the choice between going to see a therapist about a personal issue, or getting help online, I would	1	2	3	4	5

probably choose online.					
Getting help online could never be as helpful as seeing a therapist in-person.	1	2	3	4	5
Audio and video clips would make an online intervention more appealing to me.	1	2	3	4	5
I would like getting feedback from a therapist online.	1	2	3	4	5
I would be able to discuss personal issues with a therapist face to face.	1	2	3	4	5
I would be able to discuss personal issues with a therapist online.	1	2	3	4	5

Have you ever seen a therapist or counselor? ____ Yes _____ No

Have you ever used the Internet to get information about mental health issues? ____ Yes ____ No

Have you ever posted to or participated in an online support group about a mental health issue? _____ Yes ____ No

What do you view as the biggest advantage of online counseling/mental health interventions?
_____

What do you view as the biggest disadvantage of online counseling/mental health interventions?
_____

For the following questions, please answer regarding experiences you have had when you were 14 years old or older.

2. **Have you ever had someone put their penis into you vagina, butt, mouth, or insert fingers or objects in your vagina or butt without your consent by:**

a. Taking advantage of you when you were too drunk or out of it to stop what was happening.
b. Threatening to physically harm you or someone close to you.
c. Using force, for example holding you down with their body weight, pinning your arms, or having a weapon.

3. **Even though it did not happen, has someone ever TRIED to put their penis into your vagina, butt, mouth or tried to stick in fingers or objects in your vagina or butt by:**

a. Taking advantage of you when you were too drunk or out of it to stop what was happening.
b. Threatening to physically harm you or someone close to you.
c. Using force, for example holding you down with their body weight, pinning your arms, or having a weapon.

Appendix C
Informed Consent Form

UNIVERSITY OF HOUSTON
CONSENT TO PARTICIPATE IN RESEARCH

1. Title of Project: N ***Beliefs about Treatment Approach Preference for Negative Sexual Experiences***

2. Sites: University of Houston (Houston, TX)

3. Investigators: Amie E. Grills-Taquechel, Ph.D., (for UH inquiries) 713-743-8732 aegrills@uh.edu
Heather Littleton, Ph.D., hlittleton@yahoo.com

4. The Purpose of Research
The purpose of this study is to gain a better understanding of women's views towards therapeutic services conducted in person and/or in an online, internet-based setting. Advantages and disadvantages of each approach will be probed both in general and specific to a treatment for negative sexual experiences. Information from this study will guide the researchers in creating an internet-based treatment for women who have had negative sexual experiences.

5. Subjects
Participants in this study will be 500 women over the age of 18 enrolled as a student at the University of Houston.

6. Procedures and Duration of Participation
You will be asked to complete several questions about yourself and one self-report measure on the website. This will include questions regarding your attitudes toward different types of therapy for individuals who have had negative sexual experiences as well as your experience with different types of mental health resources. You will also be asked questions about whether you have had certain types of negative sexual experiences. Completing these measures should take 10 minutes or less.

7. Benefits
There will likely be no personal benefits to you for participating in this research. However, this research will help to improve understanding of women's attitudes toward different treatment approaches for negative sexual experiences. In addition, the research will help in developing novel treatment approaches for women who have had negative sexual experiences.

8. Risks
The primary risk would be if you found any of the questions to be personally upsetting or found it upsetting to recall negative sexual experiences that you have had. If this occurs, you can close the webpage to end the study and contact the investigators. You may also contact the University of Houston Student Counseling Center (713-743-5454) or Psychological Research and Services Center (713-743-8600).

9. Right to Refuse
Participation in this study is voluntary and you may change your mind and withdraw from the study at any time without penalty or loss of any benefit to which you are otherwise entitled. Simply close your browser window.

10. Privacy
All the information that you provide will be confidential and access to your data will be restricted to the primary investigators and their research staff. Your data, along with that of others, will be stored in a secure location. Some identifying information will be collected to assign you extra credit or to enter and notify you of the raffle. This contact information will not be linked to your responses. Identifying information will be removed from your data file before it is downloaded by the investigators. Data will be kept secure and confidential unless release is legally compelled. All information that is obtained in connection with this project and that can be identified with you will remain confidential as far as possible within legal limits.

11. Compensation:
You may choose one of two options for receiving compensation for participating in this study: 1) You can receive one-half hour of extra credit for a psychology course; OR 2) you can select to be entered into one of two raffles that will be conducted for $25 Amazon.com gift cards.

12. Freedom to Withdraw: You are free to withdraw from the study at any time by closing the web page. If you choose to withdraw you will not be penalized.

All research projects that are carried out by investigators at the University of Houston are governed by requirements of the university and the federal government. This project has been reviewed by the University of Houston Committee for the Protection of Human Subjects (CPHS) and any questions regarding your rights as a research subject may be addressed by CPHS (713-743-9204). If you have any questions regarding your participation in this study or this informed consent document, please do not hesitate to email Dr. Grills-Taquechel (aegrills@uh.edu) or Dr. Littleton (hlittleton@yahoo.com).

By clicking the submit button you are giving your consent to participate in this study. You may withdraw at any time by closing your browser window.

Appendix D
Provided Counseling Resources for Participants

Thank you for completing the survey. Below are some resources you can contact if you wish to discuss any of the topics covered in the survey or if you would like more information about these topics. Please print this page for your records.

University of Houston Counseling and Psychological Services (CAPS)
(713) 743-5454
Second floor of Student Service Center, Room 226
Office hours M-T 8-7, W-F 8-5
Walk-ins are accepted during office hours
U of H students are eligible for 10 free sessions per semester; call the center to schedule an appointment.

Psychological Research and Services Center
(713)743-8600
Office hours 8-5 M & F, 8-8 T, W, Th
Provides services on a sliding scale fee basis
Located on Cullen Blvd. at Entrance 8, near Wheeler

Houston Area Women's Center
The Houston Area Women's Center provides several types of services:
A 24 hour free and confidential hotline: (713) 528-7273
Free individual and group counseling

Study PI Contact Information:
Dr. Amie Grills-Taquechel
aegrills@uh.edu

Appendix E
University of Houston Institutional Review Board Approval

UNIVERSITY of HOUSTON

COMMITTEES FOR THE PROTECTION OF HUMAN SUBJECTS

September 11, 2008

Dr. Amie E. Grills-Taqueche
Psychology

Dear Dr. Grills-Taqueche:

The University of Houston Committee for the Protection of Human Subjects (2) reviewed your research proposal entitled "Beliefs about Treatment Approach Preference for Negative Sexual Experiences" on August 14, 2008, according to institutional guidelines.

At that time, your project was granted approval contingent upon your agreement to modify your proposal protocol as stipulated by the Committee. The changes you have made adequately respond to those contingencies made by the Committee; however reapplication will be required:

1. Annually
2. Prior to any change in the approved protocol
3. Upon development of the unexpected problems or unusual complications.

Thus, if you will be still collecting data on this project on **July 1, 2009** you must reapply to this Committee for approval before this date if you wish to prevent an interruption of your data collection procedures.

If you have any questions, please contact Alicia Vargas at (713) 743-9215.

Sincerely yours,

Rebecca Storey

Dr. Rebecca Storey, Chairman
Committee for the Protection of Human Subjects (2)

PLEASE NOTE: (1) All subjects must receive a copy of the informed consent document. If you are using a consent document that requires subject signatures, remember that signed copies must be retained for a minimum of 3 years, or 5 years for externally supported projects. Signed consents from student projects will be retained by the faculty sponsor. Faculty are responsible for retaining signed consents for their own projects; however, if the faculty leaves the university, access must be possible for UH in the event of an agency audit. (2) Research investigators will promptly report to the IRB any injuries or other unanticipated problems involving risks to subjects and others.

Protocol Number: 08323-02 Full Review_____ Expedited Review __X__

Learning. Leading.™ 316 E Cullen Building • Houston, TX 77204-2015 • 713/743-9204 • Fax: 713/743-9227