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Walden University

College of Social and Behavioral Sciences

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Joel Kofmehl

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Walden University
2016

Abstract

Online Versus In-Person Therapy: Effect of Client Demographics and Personality Characteristics

by

Joel J. Kofmehl

MS, Walden University, 2010

BS, Seattle University, 2000

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Psychology

Walden University

November 2017

Abstract

Traditionally, mental health professionals have provided psychotherapeutic services through face-to-face sessions. As the Internet has become an increasingly important part of individuals' personal and professional lives, psychologists and clients have used this medium to expand access to psychotherapy. The purpose of this quantitative correlational design was to investigate whether demographic variables and the personality traits of extroversion/introversion (E/I), as assessed by the Big Five Inventory, predicted clients' preferences for a specific method of administered psychotherapy. The theoretical framework for this study was social information processing through computer-mediated communication. An online survey site was used to assist in survey design and data collection, and 301 individuals participated in the study. Results of the Pearson correlation indicated that age was negatively correlated with use of online therapy ($p = .038$). The variables of region, race, and E/I had no statistically significant effect on the use of online versus in-person therapy (all p values $> .05$). Findings reflected larger social trends that decisions to seek online therapy fall along lines of diversity related to age and technological knowledge. Recommendations include engaging older patients in opportunities for participating in online therapeutic services, as well as further research on the relationship between cultural diversity and online therapy. These results can inform practitioners and the community about the importance of expanding access to psychotherapeutic services for individuals who need them, which will in turn be an important component of positive social change.

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Dedication

To God and Jesus for giving me strength to persevere through all my life adventures. To Jennifer and Megan my loving wife and daughter, who inspired me throughout the whole graduate university process along with myself for sticking to it and striving through it.

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Table of Contents

List of Tables v

List of Figures vi

Chapter 1: Introduction to the Study...1

Background 4

Statement of the Problem..9

Purpose of the Statement 10

Theoretical Framework 11

Research Question 13

Definition of Terms...15

Nature of the Study 16

Assumptions and Limitations 16

Scope and Limitations...17

Significance of the Study 17

Summary 18

Chapter 2: Literature Review...21

Introduction...21

Literature Search Strategy...23

Theoretical Framework 24

SIP Through CMC 24

Psychotherapy 30
History of Online Therapy 32
Current Scholarship on Online Therapy 39
Behavioral Health Choices and Summary 47
Barriers to Behavioral Health Services 47
Making the Choice to Seek Therapy 49
Extraversion/Introversion (E/I) and Trait Theory 51
Demographic and Choice of Therapeutic Modality 52
Summary 54
Conclusion 56
Chapter 3: Research Method 58
Introduction 58
Research Design 58
Target Population and Participant Selection 60
Sampling and Data Collection Procedures 61
Recruitment of Participants 62
Instrumentation 62
Operational Definitions of Variables 63
Data Analysis 66
Ethical Consideration 70

Threats to Validity 71

Summary 71

Chapter 4: Results 73

Introduction 73

Data Collection 74

Baseline Descriptive Characteristics 75

Pre-Analysis Data Cleaning 76

Results 76

Chapter 4 Summary 88

Chapter 5: Discussion 89

Introduction 89

Interpretation of the Findings 89

Hypothesis 1 90

Hypothesis 2 92

Hypothesis 3 93

Hypothesis 4 94

Limitations of the Study 96

Recommendations 97

Implications 98

Conclusion 100

References..102
Appendix A: The Big Five Inventory: Extraversion Scale...119
Appendix B: E-Therapy Attitude Scale 120
Appendix C: Demographic Questions 122
Appendix D: Invitation to Take Part in Study 123
Appendix E: Big-5 Permission 124
Appendix F: Instrument From SurveyMonkey...125

List of Tables

Table 1. Characteristics of Extroversion and Introversion 64

Table 2. Frequencies and Percentages for Respondent Characteristics 75

Table 3. Frequencies and Percentages for Sample Characteristics 77

Table 4. Pearson Product-Moment Correlation Between Use of Online Therapy and Age 80

Table 5. Analysis of Variance Table for Likelihood to Use Online Therapy by Age Group 81

Table 6. Means and Standard Deviations on Age Group Scores by Likelihood to Use Online Therapy 82

Table 7. Group Differences for Likelihood to Use Online Therapy by Region 83

Table 8. Mann-Whitney U Test for Likelihood to Use Online Therapy by Region 84

Table 9. ANOVA for Likelihood to Use Online Therapy by Race 84

Table 10. Means and Standard Deviations for Racial Categories by Likelihood to Use Online Therapy 85

Table 11. Kruskal-Wallis Rank Sum Test for Online Therapy Use by Race 85

Table 12. Independent Samples t-Test for the Difference Between Likelihood to Use Online Therapy and Race 87

Table 13. Group Differences for Likelihood to use Online Therapy by E/I 88

List of Figures

Figure 1. Normal P-P Plot to assess linearity for age and likelihood to use online therapy..79

Figure 2. Residuals scatterplot for homoscedasticity for age and likelihood to use online therapy..80

Chapter 1: Introduction to the Study

Almost half of U.S. adults will experience a behavioral health emergency condition or episode during their lifetimes (Jones et al., 2014; Rosenberg, 2012). During 2010, more than 1.8 million U.S. adults received inpatient services at a hospital (U.S. Centers for Disease Control [CDC], 2010). According to Jones, Lebron-Harris, Sripipatana, and Ngo-Metzger (2014), 5.7 million U.S. adults described a lack of mental health treatment services in 2005 and were unsuccessful in obtaining treatment in 2004. Fewer than 40% of patients with mental disorders and substance abuse receive treatment (Rosenberg, 2012). Increasing high turnover rates in the mental health profession may jeopardize the continuity of care and create a financial and human resource drain for community health care centers.

From these statistics, researchers can identify that the need for mental health services is important. From mild to severe, various types of behavioral health therapies are available to the public for the treatment of many disorders (Rosenberg, 2012); however, limited access to these services has been a growing concern for researchers and practitioners (Cavaliere, 2014). People living in poverty have the greatest difficulty with access to care, lacking health insurance and education, and suffering from medical comorbidities (Cavaliere, 2014; Jones et al., 2014). Many impoverished areas of the United States need mental health services at affordable rates (Shin, Sharac, & Mauery, 2013). In light of these circumstances, the Affordable Care Act provides insurance coverage for the underprivileged, whereas prior to the implementation of the act, there

was no public access to health insurance to cover the mental health needs of underprivileged individuals (Shin et al., 2013). The next step for the mental health community should be creating awareness of behavioral health services and how they can help individuals and families overcome traumatic situations. Left untreated, these issues may become a social and financial burden to the United States.

Exacerbating the problems with behavior health care is a failure of public and personal education with regard to the stigma of receiving mental health services (Chisolm, 2011). Pervasive in American society, individualistic values are antithetical to the therapy-seeking behavior that psychoanalysis provides (Midlarsky, Pirutinski, & Cohen, 2012). Religious and cultural barriers to mental health treatments increase emotional distress in potential patients and families (Becker & Kleinman, 2013). Although public service campaigns may alleviate fears and stigma related to seeking treatment, providing therapy is an issue because federal and state agencies have cut budgets for mental health services.

High turnover rates in the mental health profession jeopardize the continuity of care and create a financial and human resource drain for community health care centers. A lack of behavioral health care providers creates a barrier to care (Acker, 2011; Cavalier, 2014; Chilsolm, 2011; Jones et al., 2014; Rosenberg, 2012). Additionally, Acker (2011) found that emotional exhaustion, role stress, and lack of professional development were major causes of employee attrition among mental health professionals.

Public and private institutions will need to address the growing number of mental health needs and employee turnover before experiencing a major crisis.

The decision for individuals to seek treatment may also be connected to the type of condition they have. Alcohol abuse inflicts economic costs to society and is a major contributor to the overall global disease affliction (Blankers, Koeter, & Schippers, 2011). Treating mental illness has been shown to reduce the effects of drug and alcohol abuses and comorbid chronic diseases (Aardoom, Dingemans, Spinhoven, & Van Furth, 2013; Brief et al., 2013; Rosenberg, 2012; Shin et al., 2013). Regardless of these successful interventions, people suffering from substance abuse typically refuse or pursue interventions for their afflictions or mental disorders.

According to Jones et al. (2014), federally funded and supported health centers deliver outpatient and inpatient care to more than 20 million patients, primarily within impoverished communities. A majority of these centers provide mental health services that include behavioral and pharmaceutical therapies; however, the centers are experiencing funding shortfalls and shortages of trained practitioners (Shin et al., 2013). Despite the institutional circumstances, practitioners are providing in-person care therapeutic services to those who are willing and able to seek help.

People seeking help at federally qualified centers are not required to pay or provide insurance, which begins to address one of the major barriers to proper health care. Jones et al. (2014) found that access to regular and consistent care allowed patients to find proper mental health care. Furthermore, the centers provided continuous care and

acted as a referral network for severe mental illnesses and crisis care. Because of the availability of behavioral health care to economically poor areas, the amount of people seeking help has more than tripled during the 10-year period between 2000 and 2010 (Shin et al., 2013). From these findings, congressional support is necessary for the continual funding for health centers (Shin et al., 2013).

Educating the general public about the services and efficacy of programs available builds on the fiscal duty of society to support behavioral health and alleviate much of the burden of disease. The Internet has a far greater reach than paper-bound sources when educating the public about psychotherapy and other behavioral health-related topics. Health and wellness websites are some of the most popular sources for this information (Christensen & Griffiths, 2000). From the practitioner's point of view, the Internet provides personal education and a readily available resource of information. The Internet affords the general populace a greater accessibility to quality mental health information (Casey, Joy, & Clough, 2013; Christensen & Griffiths, 2000).

Background

Many people with mental health concerns fail to seek any form of therapy because of cultural or educational barriers. Other barriers to seeking therapy include age and severity of mental health conditions. Still, many people with mental health disorders understand that they are not well; therefore, they agree to seeking therapeutic intervention. Usually, a person with a mental health disorder seeks help when the

disorder inhibits him or her from living a healthy life; for example, agoraphobia prevents a person from leaving his or her home and doing the simplest tasks without help.

Freud and Breuer (1895) pioneered science and psychiatry with a new way of analyzing and treating “hysteria” that patients called *psychoanalysis*. Janet (1914) remarked on the fact that many others in the field of psychology performed research based on the ideas and theories expounded by Freud, ostensibly coming from several of his major works. Janet’s paper on psychoanalysis discussed at length the characteristics of memories, describing traumatic memories, the role of memories, and the sexual nature of memories. This early work on psychotherapy, as it is known today, delved into the histories of each patient to better understand their traumatic experiences that continue to physically manifest in various ways. Carl Jung was also a pioneer and worked extensively to expand the field and research pertaining to psychoanalysis (Janet, 1914). The progression of psychological-scientific research continues to resonate in the scientific literature today with Freud’s initial theories on the subconscious.

Traditional forms of psychotherapy are based on a culture of in-person encounters for patients and practitioners also known as *in-person counseling*. Practitioners assessed the analysis of a patient’s condition through dyadic verbal interactions, including intonation of speech and word choices. In addition, nonverbal interactions are as important as what was being said, which contributes to a practitioner’s global view of the therapeutic process (Dowell & Berman, 2013). As a form of communication, in-person counseling sessions allow psychologists to interact with their clients both through verbal

and nonverbal communication. Psychotherapy is the combination of verbal and nonverbal communications that assist in providing an overall efficacious treatment program for the client (Dowell & Berman, 2013). The benefits of in-person counseling are especially evident when considering the value of nonverbal communications in this modality. Through in-person interactions, both the psychologist and the client can communicate through signals of eye contact, trunk leans, pauses, silence, vocal tones, and other proprioceptive stimuli to enhance the overall therapeutic process (Dowell & Berman, 2013). In addition, because practitioners can assess patients in person, they are well-positioned to assess and address situations that may require immediate medical attention, including hospitalization (Dowell & Borman, 2013).

Mental health professionals used alternative forms of psychotherapy prior to the invention of the telephone and Internet. Freud exchanged letters and volumes of correspondence with patients and doctors (Perle et al., 2011). During the 1950s, “tele-health” was considered a viable option for therapeutic services, especially because of the reach and immediacy the telephone provided (Migone, 2013; Perle et al., 2011). Moreover, because of the increased need for mental health in poor and rural areas of the countries, tele-health overcame barriers of distance and accessibility (Griffiths & Christensen, 2007; Migone, 2013). Many of the ethical concerns and research biases came into question when researchers examined online therapy, which provoked and increased amount of research to test the efficacy of therapeutic services through the telephone (Migone, 2013). Because of the findings of these studies, much of the

institutional culture surrounding in-person therapy expanded with the advent of new technologies and the reach of technological infrastructures to become more accessible.

Since the mid-1990s, psychotherapy scholars have been confronted changing communication because of the Internet. Because of the importance of communication to psychotherapeutic practices, the evolution of technological change has directly affected the field. As the Internet has continued to evolve as a means of therapeutic intervention, as has the field's scholarship on the benefits, dangers, and possible uses of the Internet.

A seminal study that explores the possibilities available to the field of psychotherapy in relation to the evolution of the Internet was Barak's (1999) *Psychological applications on the Internet: A discipline on the threshold of a new millennium*. Some of the ethical concerns Barak raised are no longer relevant. For example, the author warned that, "intensive use of the Internet, particularly in active and interactive communication, may cause addiction" (Barak, 1999, p. 241). This belief has been disproven today, but at the time Barak advised his readers, "these are serious issues, and the professional community of on-line psychologists certainly will have to identify and examine ways to cope with them" (p. 241).

Barak's (1999) approach was similar to many other researchers' approaches to online therapy at the time: an acknowledgement of the possibilities the Internet presented for the field of psychology, a discussion of ethical or professional concerns, and an assumption that psychotherapy would need to come to terms with how best to use these new opportunities and mediate these new concerns. Christensen and Griffiths (2000)

investigated the advantages, disadvantages, and potential dangers of the Internet's role in behavioral health interventions, and the authors concluded that, "the Web, due to its accessibility, has advantages in providing access to information, online therapy and adjunctive therapy in mental health" (p. 957). Approximately 280 million Americans can access the Internet at home, work, or through public facilities, such as the library (West, 2015). However, Christensen and Griffiths (2000) cautioned future researchers and practitioners that with these advantages came risks, such as information overload, poor information quality, potential harm, and a general lack of scientific and scholarly evaluation. Fitzgerald, Hunter, Hadjistavropouos, and Koocher (2010) also provided guidelines to address ethical and professional concerns of Internet-based psychotherapy (IBP), including training to enhance and maintain technological competence, including technology used to verify identity and protect confidentiality.

Psychologists providing IBP should also understand communication-based legislation as it pertains to client rights and professional jurisdiction. In addition, psychologists should clarify terms of service specifically as these terms apply to IBP: they include emergency contact situations, availability, response time to electronic communication, fees, and handling missed sessions. Psychologists providing IBP should also seek out and adhere to professional guidelines, codes of conduct, and legal advice for the provision of IBP to minimize risk of liability while providing high-quality services.

Christensen and Griffiths (2000) suggested that the lack of scientific studies has dissipated after psychotherapy scholars began to critically investigate the Internet as a

viable option for communicating therapeutic interventions. Currently, therapy administered via an online communication modality seems to go by many different names. Internet therapy administered by using online communication modalities may be referred to as *e-therapy* (Castelnuovo, Gaffiolo, Mantovani, & Giusepe, 2003), *online therapy* (Migone, 2013; Cook & Doyle, 2002; Christensen & Griffiths, 2000), *e-counseling*, *e-health*, *cyber-therapy* (Bell, 2007), and *tele-health* (Barak et al. 2008; Griffins & Christensen, 2007).

Based on the research literature, online therapy has become a viable alternative to traditional, in-person psychotherapeutic treatment; however, the factors that influence an individual to choose online therapy instead of in-person therapy have not been studied, which highlights a gap in the research literature that needs to be addressed. The problem is how to understand the relationship between a potential patient's demographics and personality traits and their likelihood of choosing online therapy versus in-person therapy. By studying the relationship between these variables and the likelihood that individuals will choose to pursue either online therapy or in-person therapy, psychologists may better understand the factors that predict a client's choices and better serve their needs.

Statement of the Problem

I investigated the following research question: Among current or prospective clients, do age, region, ethnicity, and introversion/extroversion (E/I) contribute to reported likelihood of choosing online therapy or in-person therapy?

With the evolution of the Internet, additional forms of communication have arisen through which psychotherapeutic treatments can be administered (Barak, Hen, Boneil-Nissim, & Shapira, 2008). As the use of the Internet becomes more influential and more widely accepted as a normative societal resource, both the psychologist and client may use this medium to expand access to psychotherapy (Vilhauer, 2013; Mallen, Day, & Green, 2003). The areas of expanded access may be in e-chat rooms, via web telephony or video conferencing, and through online instant messaging, among others (Andersson, 2009; Barak, 1999; Brief at al., 2013; Castelnuovo, Gaggiolol, Mantovani, & Giuseppe, 2003; Doley-Cohen & Barak, 2013; Kobak, Craske, Rose, & Wolitsky-Taylor, 2013). Various modes of treatment may increase a potential client's comfort with the psychodynamic work and positively affect the probability of success. Research suggests that computer-mediated communication (CMC) allows some people to be more open with their personal concerns, more than when interacting in-person (Tidwell & Walther, 2002). A portion of the general population may use online therapeutic services when given the choice between in-person or online interventions. The literature, however, indicates a clear gap with regard to the role of demographics and personality traits such as introversion versus extroversion when choosing an intervention.

Purpose of the Statement

The purpose of this quantitative correlational design was to understand the extent to which demographic variables and the personality traits of E/I influence a client's preference for a specific method of administered psychotherapy. With regard to other

possible variables, much of the previous research has discussed the role gender plays in choice of delivery of therapeutic interventions (Rochlen, Zack, & Speyer, 2004; Voinescu, 2013). Researchers were not entirely in agreement, because a few studies found female bias toward in-person counseling services, whereas the majority did not find any bias (Jiang, Bazarova, & Hancock, 2011; Perle et al., 2011; Voinescu, 2013). In addition, because extraversion and introversion are interpersonal dimensions that involve social interaction and engagement, they may be personality traits that can predict individuals' decisions for seeking online therapy. However, whether E/I is connected to individuals' decisions to seek online theory is not known. Choice has been examined for online therapies only, neglecting the option of in-person interventions. The lack of research regarding choice between the two types of practitioner interactions presented a gap in the literature, especially related to the role E/I personality traits, when choosing a mode of therapy (Rochlen, et al., 2004). In this research study, I investigated multiple variables, demographic and personality (independent variables), with regard to choice (dependent variable) of the mode for interaction between practitioner and client, which will contribute to the body of literature and serve to educate practitioners.

Theoretical Framework

Freud and Breuer (1895) pioneered what is contemporarily known as *psychodynamic work*. Practitioners of Freud's theory spent years with patients, learning how they expressed their feeling and memories, what they spoke about, and the idiosyncrasies in their speech, and they learned about the patient's past experiences. The

psychiatrist also spoke with family members and friends to gather information from multiple sources to make a comparison of the information (Janet, 1914). By gathering information about a patient's experiences and memories, a practitioner was able to find the trauma causing the hysteria and offer a therapeutic intervention through the patient's own realization of the trauma. Talk therapy was found to be efficacious in many research studies using psychoanalytic interventions that treated patients with neurotic symptoms (Janet, 1914). Many therapies currently available, such as cognitive behavioral therapy and dialectical behavioral therapy, function with the foundations of psychoanalysis; however, they are more research-based in comparison to Freud's work.

The theoretical framework for this research study incorporates social information processing (SIP) through CMC. SIP theory demonstrated that CMC users, lacking nonverbal cues, had adapted in-person interpersonal communication to the context of situation and the media used (Jiang et al., 2011; Tidwell & Walther, 2002; Walther, 2005; Walther et al., 2010). CMC enhanced intimacy for participants to divulge private and personal details, especially when a lack of personal information and nonverbal cues allowed them a degree of anonymity and reassurance that details could not be connected to person at the keyboard (Spottswood et al., 2013; Tidwell & Walther, 2002; Walther, 2005, 2007). Typical verbal cues are ascribed to the nonverbal communication in email, text messages, and other forms of text only communications (Walther, 2005). Participant emotions and attitudes were translated from physical actions, which would have taken

place in in-person interaction and placed into nonverbal modes of communication (Walther, 2005).

Working from SIP, because of the lack of physical and social cues, CMC facilitates a positive dyadic interaction and allows control over presentation of interaction, whereas in-person communication is open for more mistakes and misconstrued interactions (Jiang et al., 2011; Tidwell & Walther, 2002; Walther 2005; Walther et al., 2010). Moreover, receivers of information recognize the context of CMC and construct the missing nonverbal cues (Walther et al., 2010). Tidwell and Walther suggested that this communication model, which they term the *hyper-personal model*, showed an even greater propensity for participants to divulge private information because of “selective self-presentation” (p. 320). Jiang et al. (2011) found that interpersonal communication in CMC had elevated disclosure of private information when compared with in-person, which supported the hyper-personal model. In addition, language and contextual cues were available to both sender and receivers of CMC, which lent to a more complete understanding of the personal dynamic. SIP through CMC explained why Internet-based psychological intervention strategies proved to be a viable means of pursuing and distributing therapeutic treatments (Anderson, 2010; Castelnuovo, 2003; Dolev-Cohen & Barak, 2013; Dowling & Rickwood, 2013; Reynolds et al., 2013).

Research Question

In this quantitative correlational study, I investigated the following question:

1. Among current or prospective clients, do age, region, race, and introversion/extroversion (E/I) contribute to reported likelihood of choosing online therapy or in-person therapy?

The research questions focused on the following hypotheses:

$H_0$1: There is no significant difference between the reports of likelihood to use online versus in-person interventions and age of the prospective client.

H_a1: There is a significant difference between the reports of likelihood to use online versus in-person interventions and age of the prospective client.

$H_0$2: There are no significant differences between reports of likelihood to use online versus in-person interventions by the region of the prospective client.

H_a2: There are significant differences between reports of likelihood to use online versus in-person interventions by the region of the prospective client.

$H_0$3: There are no significant differences between reports of likelihood to use online versus in-person interventions by the race of the prospective client.

H_a3: There are significant differences between reports of likelihood to use online versus in-person interventions by the race of the prospective client.

$H_0$4: There are no significant differences between reports of likelihood to use online versus in-person interventions and the personality traits of introversion/extroversion of the prospective client.

H_a4: There are significant differences between reports of likelihood to use online versus in-person interventions and the personality traits of introversion/extroversion of the prospective client.

Definition of Terms

Current clients are those who have sought and or are presently receiving therapy.

Extroversion is a personality trait for people that choose to be with others, rather than be alone. The extrovert attends gatherings and social events and takes risks that seem impulsive, which brings a sense of adventure into their lives (Dolev-Cohen & Barak, 2013).

Introversion is a personality trait for people that choose to be alone, rather than hold company with others. This personality type is inclined toward reflective thoughts, and perceived as dull and not adventurous (Dolev-Cohen & Barak, 2013).

Online therapy is a general term used by the research community for CMC between a therapist and client (Barak et al., 2008). Also included in this definition is the use of a therapeutic intervention that is mediated by an online application or part of a computer program. According to Barak et al., online intervention is one criterion for an intervention to be considered online therapy, as well as website-based and real-time.

Personality type is a combination of characteristics that group individuals into extroversion or introversion factors that dictate behavior and preferences (Myers & McCaulley, 1985).

Prospective clients are individuals who are interested in seeking therapy or are already in or have been in therapy.

Race is the social construct of a human group that can be differentiated through nationality and social grouping, which involves geographical location, national origin, and religious affiliation (Corlett, 2014).

Nature of the Study

I used a correlational design. A quantitative design focuses on finding statistically significant effects from data that can be quantifiable (Howell, 2010). Data collected can be expressed numerically and the variables of interest in the study, specifically the likelihood of using Internet interventions, because of the age, region, race, and patient E/I can all be quantifiable. A quantitative approach allows researchers to generalize the results of the analyses across the larger-studied population (Creswell, 2005).

Researchers employ a quantitative survey design to find relationships between two or more sets of variables (Creswell, 2005). I examined the relationship between demographic and personality variables (independent variables) and the likelihood to use Internet interventions (dependent variable) to test whether age, region, race, E/I personality is related to the likelihood of using Internet interventions, the quantitative design is appropriate.

Assumptions and Limitations

I assumed that the attitudes and perceptions of the participants guiding their choices between in-person or online therapy reflect the same attitudes and perceptions of

most clients in the United States seeking mental health services. I also assumed that the participants have a foundational understanding of both types of therapeutic interactions with practitioners and the interventions available. Finally, I assumed that all participants answered the survey truthfully.

Scope and Limitations

The scope of this study is restricted to participants who are computer literate and can answer the online survey. One limitation of this study was participants' lack of experience with online therapy, because computer-based interventions are a relatively new form of psychotherapy. This lack of experience may have affected their choices. Last, biases could be present in the responses with regard to use of either form of therapy, which may result in a response bias to the survey. However, I used the E-therapy Attitude Scale as a measurement of participants' experience of each type of therapy and their likelihood to use online therapy (Finn, 2002). A potential exists for the generalization of the study results to the large target population because of the research design and the sampling techniques used to collect a representative sample.

Significance of the Study

I examined the potential relationship between specific variables (age, region, race, and E/I) and the likelihood to pursue either in-person therapy or online therapy. This contribution to the field of psychology supports professional practice. Shedding light on the relationship between these variables and the likelihood to pursue either in-person therapy or online therapy adds to the existing literature base regarding how patients make

decisions about their treatment options in general. Practitioners can better understand what types of therapy their potential clients are likely to be interested in pursuing through understanding, which specific variables contribute to a client's likelihood to pursue online therapy versus in-person therapy.

This research may shape how the next generation of psychotherapists is trained, and the various modalities of communication that they are comfortable using with and for patients. The findings of this research project may lead to positive social change because it is clear that the field of psychotherapy has been changed by the advent of the Internet. As the Internet continues to evolve, so too must the relationship between it and the field of psychotherapy. This research will help scholars, practitioners, and perhaps, most important, clients, to better understand the options and opportunities available in pursuing various forms of communication for therapeutic interventions and the effectiveness and viability of each choice based on certain specific variables.

Summary

The alarming statistics concerning mental illness and the continual increase (Jones et al., 2014; Rosenberg, 2012) have become a social and financial burden. In addition, aggravating the general behavioral health and welfare of people is a failure of public systems and personal education with regard to the stigma of receiving mental health services (Chisolm, 2011). Even though many educational programs foster a greater acceptance of therapeutic interventions, ethnic, social, and economic barriers to proper health care will continue to be an issue for many years.

Access to proper mental health care is a growing concern, especially in light of the increases of occurrence of behavior disorders. Treatment of mental illness has been shown to reduce the effects of drug and alcohol abuses and comorbid chronic diseases (Aardoom et al., 2013; Brief et al., 2013; Rosenberg, 2012; Shin et al., 2013). Educating the general public about the services and efficacy of programs available builds on the fiscal duty of society to support behavioral health and alleviate much of the global burden of disease.

The results of this study on the relationship between these variables, and the likelihood that individuals will choose to pursue either online therapy or in-person therapy, may help psychologists better understand what factors influence clients to make such choices. Casting light on the relationship between these variables and the likelihood to pursue either in-person therapy or online therapy adds to the existing literature base regarding how patients make decisions about their treatment options in general. This understanding will help foster the introduction of therapeutic interventions, such as online therapy, may help to ease the social and financial burden of providing mental health delivery for a growing clientele.

In Chapter 2, I review the body of literature on therapeutic interventions and the theoretical assumptions behind psychotherapy. Traditional talk psychotherapy has been practiced and researched extensively for more than a century. The typical interaction between patient and therapist is through in-person appointments, whereas online interventions are computer mediated interactions, many of which are self-guided

interventions that lack interaction with a therapist. I explore literature regarding the use of in-person interventions and computer based interventions in the next chapter, as well as the efficacy between the two.

Chapter 2: Literature Review

Introduction

Psychotherapeutic services have traditionally been provided via face-to-face (FtF) interactions between practitioner and client. The benefits of FtF in-person counseling are especially evident when considering the value of nonverbal communication practices. In FtF interactions, both the psychologist and his or her client can communicate through nonverbal communication, such as signals of eye contacts, trunk leans, length of pauses and silences, as well as verbal communication to enhance the overall therapeutic process (Dowell & Berman, 2013). However, Internet use by both the psychologist and client for psychotherapeutic purposes has increased as well. Modalities of communication and access were expanded through e-chat rooms, via web telephony, video conferencing, and online instant messaging (Andersson, 2009; Barak, 1999; Brief et al., 2013; Castelnuovo et al., 2003; Dolev-Cohen & Barak, 2013; Kobak et al., 2013). For the purposes of this study, I referred to therapy administered through an online communication modality as *online therapy*, which includes the methods I discuss in this chapter, depending on the terminology used by individual researchers for specific studies.

Online therapy has delivered psychotherapeutic treatment, which was a viable alternative to traditional, FtF therapy (Andersson, 2009). In this literature review, I describe the research conducted on the viability of online therapy as it relates to the demographic and personality variables. A gap in the literature appeared with regard to the relationship between the choices of online therapy and the following specific variables:

age, region, race, and E/I. By studying the relationship between these variables and the choices individuals make to pursue either online therapy or in-person therapy, I may better understand what factors influence clients to make such choices.

This literature review is divided into four parts. In Part 1, I explore the theoretical foundations of psychotherapy and theory that bolsters the efficacy of online therapies- SIP. Psychotherapy has been practiced for more than a century and continues to evolve as research in the field progresses. Individual and practitioner led interventions have increased in number and efficacy. Advancements in technology have facilitated new ways of practitioner-client interaction. The SIP theory (Walther, 2002) has shown how CMC was an effective mode of interpersonal communication. In Part 2, I describe the history of research with regard to Internet-based psychotherapeutic interventions and the strengths and weaknesses inherent to such studies. A historical background provides scholarly approaches to online therapies and their evolution in the field of psychology. In Part 3, I explicate the most current ways that online therapy is being used and researched within the field of psychotherapy today, as well as the strengths and weaknesses inherent to such studies. In addition, I situate the present study within the broader field of contemporary psychotherapy and identifies key variables that have been researched as they relate to online therapy. In Part 4, I describe behavioral health choices, the context and challenges for practitioners and people seeking interventions. In Part 4, I also summarize the review of the literature and address the methodologies that I used to

research the variables described in the research questions. In addition, I identify a gap in the literature that this present study fills.

I used the following key words to conduct my literature review: *therapy*, *computer based*, *online*, *digital*, *internet therapy*, *face-to-face*, *in-person*, *introvert*, *extrovert*, *communication*, *computer*, *level of comfort*, *access*, *and digital native*, *age and online therapy*, *region and online therapy*, *personality type and online therapy*, *introversion and online therapy*, and *extroversion and online therapy.*

Literature Search Strategy

The primary strategy for the literature research has been the use of electronic databases. A librarian was used for assistance in determining the best search methodology, and to help generate ideas regarding proper search terms and databases. Among the journal databases searched, the most applicable results were found in EBSCO, ERIC, PubMed, ScienceDirect, and Wiley Online. Many other databases were searched in the process as well, the "Peer Reviewed" feature was selected prior to generating the returns, ensuring that all of the literature generated would fit this designation. Results were mixed and relatively few in the following list of databases, with regard to my expectations: PsycARTICLES; PsycINFO; Psychology: A SAGE Full-Text Collection; PsychEXTRA; Academic Search Complete; Educational Resources Information Center (ERIC); Education Research Complete; and SocINDEX with Full Text.

Utilizing the Boolean keyword search terms, articles were found pertaining to discussions on online therapy, in-person therapy, and SIP theory were selected. Also, articles pertaining to a general discussion about online therapy were selected. Particular attention was made with searches performed regarding the combination of the keywords: internet therapy, client demographics, and personality type. With the peer-reviewed, journal article, and no older than five years criteria selected, search results presented 151 articles, of which the field was narrowed further through the inclusion of the search term mental health worker. From these parameters, only one study by Simms, Gibson, and O'Donnell (2011) was found. Simms et al. (2011) investigated mental health provider's perceptions of client suitability for online therapy and did not describe demographics or personality traits. The scope of the following literature review includes foundational research, as well as current peer-reviewed research. With a strong base of articles selected, I performed multiple searches in an effort to identify more articles regarding online therapy.

Theoretical Framework

SIP Through CMC

Research has shown that participants using CMC showed a willingness to divulge intimate personal details, especially when a lack of personal information and nonverbal cues allowed them privacy (Spottswood et al., 2013; Tidwell & Walther, 2002; Walther, 2005, 2008). However, during brief exchanges between participants, the missing nonverbal cues were interpreted as impersonal communication and tended to contain

negative connotations (Spottswood et al., 2013; Walther, 1992). Aspects of CMC, such as anonymous user names, created an impersonal presentation of users and user personal information, which led to ambiguity by design and to the detriment of the communicator. Issues of trust and reliability became apparent because interchanges that contained a lack of complete and convincing information inhibited the receiver or viewer to make a positive assessment (Spottswood et al., 2013). Moreover, the lack of personal information and social cues triggered socially normative projections and prejudices upon the initiator of conversion. Stereotypical assessments were made of senders of CMC when partial information was shared and were found to be more “extreme than in FtF” (Jiang et al., 2011, p. 60). Certainly, prejudice and stereotype were detrimental to interpersonal relationships and helped produce the negative feelings related to impersonal communications.

Regardless of missing nonverbal cues and personal details, interpersonal communication facilitated through CMC was shown to develop familiarity, intimacy, and personal revelations (Jiang et al., 2011). Thoughts, feelings, and other intimate details shared through CMC fostered a stronger interpersonal connection (Altman & Taylor as cited in Taylor & Wheeler, 1973). Because in-person interpersonal communications were not unidirectional, reciprocating admissions and disclosures could be conveyed (Taylor & Wheeler, 1973). Also, social customs of divulging information in steps and over an extended period of time increased the positive aspects of interpersonal communication (Taylor & Wheeler, 1973). Prior to age of information and personal computing, Taylor

and Wheeler (1973) suggested that environment and duration of time, as well as amount of interactions, played a very large role with regard to the development of relationships and intimacy, which confirmed the hypothesis of social penetration theory.

The hyper-personal model of CMC predicted that the lack of social context—such as smiling, eye contact, body orientation, leaning forward, touching, etc.—facilitated a more positive dyadic interaction during online communication through deliberative impressions, which allowed control over presentation of interaction, whereas in-person was open for more mistakes and misconstrued interactions (Jiang et al., 2011; Tidwell & Walther, 2002: Walther, 2005; Walther et al., 2010). Personal disclosure during interpersonal exchange was more selective in online presentation of information. CMC participants were allotted more time to think, reflect, and edit responses, much more so than in-person interactions. Moreover, receivers of information recognize the context of CMC and construct the missing nonverbal cues (Taylor & Wheeler, 1973; Walther et al., 2010). An individual utilizing CMC experienced an advantage over individuals using in-person communications, providing the individual is an intuitive and capable communicator; otherwise, the communications received could be turned into negative impressions regardless of the contextual advantages.

Social information processing (SIP) theory demonstrated that CMC users lacking nonverbal cues had adapted interpersonal communication to the context of situation and the media used (Jiang et al., 2011; Tidwell & Walther, 2002; Walther, 2005; Walther et al., 2010). Through SIP, CMC's inaccessibility and impersonal attributes of nonverbal

communication were disregarded. Verbal cues were ascribed to the nonverbal cues (Walther, 2005). Emotions and attitudes were translated from physical actions, which would have taken place in an in-person interaction, and placed into nonverbal modes of communication (Walther, 2005). Moreover, CMC's aspects of impersonal communication that may have prompted stereotypical thinking and prejudice were no different than the stereotypes and prejudices conceived during in-person interactions (Walther, 2005).

Language cues evoked disposition and character impressions (Walther et. al., 2010). According to Hancock (2004), irony was conveyed through "adverbs and adjectives that amplify an utterance's evaluative intent" (p. 448). Hyperbole and contextual discrepancies also contributed to a speaker's language cues, whether it be in-person or CMC (Hancock, 2004). Akin to the importance of editing, individuals were able to use the proper language to deliver attitudes and emotions to the recipient; therefore, the recipient was able to better understand the personality traits of the sender.

Other aspects of SIP through CMC were the amount of participants, as well as the context in which communications took place. The amount of participants affected communication and interpersonal interactions (Tidwell & Wallther, 2002). At the dyadic level, an elevated level of disclosure occurred, which was because of the reciprocation of information (Jiang et al., 2011; Tidwell & Walther, 2002; Walther, 2005; Walther et al., 2010). Communication at the group level was found to have many of the same characteristics as in-person interactions, where speakers were given feedback through

cues (Tidwell & Walther, 2002). Moreover, group participants engaged in passive observations of the group communications to assess the individual personalities and group dynamic.

CMC has expanded beyond simple text software and mediums, such as email and instant messaging. Recent software and hardware designs allowed text, sound, video, or a combination of all forms of communication, which contained verbal and nonverbal cues. Furthermore, access to these systems and applications has expanded into rural and isolated communities after the incorporation of the proper infrastructure. Chat groups and social forums have brought people together from different regions.

Technology has evolved to enhance and foster interpersonal communication between single, or multiple participants, and across vast distances (Castelnuovo, 2003; Jiang, Bararova, & Hancock, 2011). Online technologies have begun to change many third world countries from industrial era practices and brought them into the information age (Castelnuovo, 2003). Through television and photography, images and text were the cornerstone of information dissemination. However, through the Internet, interactivity has captured the attention of millions of people worldwide and spread personal, cultural, and economic information beyond the two-dimensional forms of media practiced in the past. Social media has developed into a tool to celebrate birthdays or facilitate political revolutions in oppressed countries (Olorunnisola & Martin, 2013). The instantaneous nature of online communications, such as Instant Messaging, delivered real-time communication, giving participants the feeling of being close and disclosing more

intimate details, as opposed to talking in-person (Dolev-Cohen & Barak, 2013). Furthermore, participants in CMC, through their visual cues were obfuscated or not apparent, found interaction to be more personal and less inhibited (Cook & Doyle, 2002; Dolev-Cohen & Barak, 2013; Rochlen et al., 2004; Walther 2005; Walther, Deandrea, & Tong, 2010). According to Walther et al. (2010), participants elevated their awareness of the lack of visual or nonverbal cues, therefore, the heightened contextual awareness compensated for any and all missing interpersonal cues. During a relatively short amount of time, CMC has expanded and enhanced human communication.

The evolution of the Internet has effected the field of psychology. SIP has described the efficacy of communication between two or more people, which contradicted previous thinking that in-person was a more robust and efficacious way to communicate. SIP through CMC included the informational cues presented in writing during text only communication (Tidwell & Walther, 2002; Walther, 2005). Tidwell and Walther (2002) suggested that the hyper-personal model showed an even greater propensity for participants to divulge private information because of “selective self-presentation” (p. 320). Jiang et al. (2011) found that interpersonal communication in CMC had elevated disclosure of private information when compared with in-person, which supported the hyper-personal model. In addition, language and contextual cues were available to both sender and receivers of CMC, which lent to a more complete understanding of the personal dynamic.

Internet-based psychological intervention strategies were shown to be a viable means of pursuing and distributing therapeutic treatments. For example, researchers have explored specific types of Internet interventions as viable options for a variety of patient populations and mental health issues. These populations and issues included alcohol use and posttraumatic stress disorder (PTSD) in veterans (Brief et al., 2013); anxiety disorders, mood disorders, and behavioral medicine (Andersson, 2009); clinically anxious adolescents (Spence et al., 2011); distressed adolescents (Dolev-Cohen & Barak, 2013); and insomnia (Thorndike et al., 2013). In addition, the literature demonstrated that researchers had been establishing the theoretical foundation for online therapy since the early 1990's, when SIP through CMC was developed. As the Internet continued to evolve, so too, did the relationship between the Internet and the field of psychology. With this study, I built upon work on SIP through CMC by seeking to fill the gap in online therapy in the existing literature. More specifically, this current study extended SIP through CMC by exploring the likelihood to which the following specific variables may influence a patient to choose e-therapy over in-person therapy: age, region, race, and E/I.

Psychotherapy

Also known as "talk therapy," psychotherapy has been defined as the purposeful use of verbal methods between therapist and client to investigate and modify the emotional symptoms that affect their behavior (Chisolm, 2011; Lane, Quintar, & Goeltz, 1998). Psychotherapy encourages the dyadic relationship between practitioner and client to enhance intimacy and trust, two important aspects of interaction that lead a client on a

path toward personal discovery (Lane, Quintar, & Goeltz, 1998). The practitioner encourages trust and safety through non-biased and impersonal dialog with the client, setting their judgments aside to allow the client to divulge "unconscious feelings and desires that have been retained from infancy and childhood" (Lane et al., 1998, p. 858). For over a century, psychotherapy has evolved from the early work of Freud (1885) and continues to develop a considerable amount of interventions that are designed to facilitate personal discoveries of unconscious content embedded from historical events in a client's psyche (Cohen, 2011).

The history of psychoanalysis was well documented in much of the research that was produced after the introduction of the theory (Eidenberg, 2014; Janet, 1914; Lane et al., 1998). Letters between two of the greatest proponents—Freud and Jung—described the development of psychoanalytic theories among their shared personal reflections and insights (Eidenberg, 2014). After many years of correspondence, their relationship dissolved because of theoretical differences. Both Freud and Jung continued to pioneer and work extensively to expand the field of psychiatry (Janet, 1914).

Psycho-therapeutic interventions have evolved over decades of research and found efficacious for various types of behavior disorders (Chisolm, 2011). Current research compares different types of therapies to find the best fit for each disorder. For example, according to Cohen (2011), a review of 17 psychotherapeutic trials proved to be efficacious for all of the participants versus the control subjects. Migone (2013) suggested that "psychoanalysis today is practiced in a very different way from the

classical, mid-20th- century technique" (p. 287). An example of this is a study involving Cognitive Behavioral Therapy (CBT) that was found to be efficacious for adolescents (Spence et al., 2011) and adults (Anderson, 2010). The advancements in behavioral therapy, based on the early work of Freud and his counterparts, have offered help for many afflicted with a mental disorder.

History of Online Therapy

Nonverbal forms of therapy appeared before the invention of the computer. Sigmund Freud "utilized letters to provide therapeutic consultation" (Perle et al., 2011). Also, the utility of in-person therapy sessions came into question during the 1950's, when "tele-health" was considered a viable option for therapeutic services (Migone, 2013; Perle et al., 2011). Moreover, because of the increased need for mental health in poor and rural areas of the countries, barriers of distance and accessibility were overcome with tele-health (Griffiths & Christensen, 2007; Migone, 2013). Telephone based counseling services were created to fill the void in "programs such as Lifeline, Kids help line and suicide hotline" (Looi & Raphael, p. 334). The institutional culture surrounding in-person therapy began to change with the advent of new technologies and the reach of technological infrastructures, and researchers began to study the efficacy of therapeutic services through the telephone (Migone, 2013).

Since the mid-1990's, scholars in the field of psychotherapy have been confronted with the fact that the Internet has changed the way people communicate. Because of the importance of communication to psychotherapeutic practices, this change has had a direct

effect on the field. As the Internet continued to evolve as a means of communication, and thus a means of therapeutic intervention, so too, has the field's scholarship on benefits, dangers, and possible uses of the Internet. For example, Postel et al. (2011) found that the anonymity afforded by online communication was a primary motivator for patients seeking online alcohol treatment. Pugh et al. (2014) found the ease and availability afforded by electronic communication in online therapy increased patient-therapist communication through phone meetings and emails exchanges, a degree of communication that might not have been possible with in-person meetings requiring travel and mutually agreed upon appointment times. Paxling et al. (2011) also concluded that ICBT might reduce cost to patients by overcoming distances needed to travel to specialist clinics, potentially improving access and decreasing the treatment-demand for treatment gap. Because of the low cost and easy access to treatment, Saulsberry et al. (2013) found CURB to be a successful intervention program for minority adolescents. However, there are challenges and issues associated with the provision of online therapy, as well. Some of these challenges and issues are unique to online therapy delivery, such as issues related to patient privacy and confidentiality, as well as the technical proficiency in computer and software use of providers (Fitzgerald et al., 2010). Interestingly, though, Moritz et al. (2013) also found that online therapy shared some of the same challenges and issues as in-person therapy did, such as patient concerns about poor relationships with therapists, skepticisms of psychotherapy, and stigmas associated with using psychotherapy.

One of the seminal studies to explore the possibilities available to the field of psychotherapy in relation to the evolution of the Internet was Barak's *Psychological Applications on the Internet: A Discipline on the Threshold of a New Millennium* (1999). Barak (1999) reviewed 10 Internet-based interventions in use or available at the time: (a) information resources on psychological concepts and issues; (b) self-help guides; (c) psychological testing and assessment; (d) help in deciding to undergo therapy; (e) information about specific psychological services; (f) single-session psychological advice through e-mail or c-bulletin boards; (g) ongoing personal counseling and therapy through e-mail; (h) real-time counseling through chat, web telephony, and videoconferencing; (i) synchronous and asynchronous support groups, discussion groups, and group counseling; and (j) psychological and social research. Barak (1999) also outlined specific ethical considerations that he warned the field to consider in pursuing the use of Internet-based therapy or recommending it to specific patients. Many of these ethical concerns remain an important part of research in this area of the field, such as issues related to privacy, confidentiality, and technical proficiency, issues corroborated by recent research (Fitzgerald et al., 2010). Some of the ethical concerns Barak raised, such as Internet addiction, are no longer relevant. For example, he warned that, "intensive use of the Internet, particularly in active and interactive communication, may cause addiction" (Barak, 1999, p. 241). This belief has been disproven today, but at the time Barak advised his readers, "These are serious issues, and the professional community of on-line

psychologists certainly will have to identify and examine ways to cope with them" (Barak, 1999, p. 241).

Barak's (1999) approach was similar to many other researchers' approach to online therapy at the time: an acknowledgement of the possibilities the Internet presented for the field of psychology, a discussion of ethical or professional concerns, and an assumption that psychotherapy would need to come to terms with how best to utilize these new opportunities and mediate these new concerns. For example, Christensen and Griffiths (2000) explores two perspectives on the advantages, disadvantages and potential dangers of the Internet's role in mental health and mental health research: (a) the effect of the Internet from the perspective of the clinician or practitioner; and (b) the effect of the Internet on the public's knowledge and understanding of mental health, what is commonly referred to as "mental health literacy". After reviewing these two perspectives, the authors concluded that, "The Web, due to its accessibility, has advantages in providing access to information, online therapy and adjunctive therapy in mental health" (Christensen & Griffins, 2000, p. 957). However, like Barak (1999), they cautioned readers that with these advantages came risks, such as information overload, poor information quality, potential harm, and a general lack of scientific and scholarly evaluation (Christensen & Griffiths, 2000, p. 957).

Similarly to the ways that Barak (1999) and Christensen and Griffiths (2000) evaluated possibilities for therapy distributed via the Internet, Castelnuovo et al. (2003) stated that traditional psychotherapy was based on in-person interactions or other settings

that involve verbal and non-verbal language without any technological mediation; however, emerging technologies were modifying these traditional settings. Defined in the previous section of this literature review, CMC was a viable option for two types of therapy: individual therapy and self-help therapy (Castelnuovo et al., 2003, p. 376). At the time, very few clinicians had actually adopted online therapy into their clinical practice and "a widespread change in health-care organizations would be necessary to increase the use of e-therapy tools" (Castelnuovo et al., 2003, p. 380). Like Barak (1999) and Christensen and Griffiths (2000), Castelnuovo, et al. (2003) acknowledged that there were a number of ethical, legal, and professional obligations clinicians would need to consider before incorporating and committing to these emerging modes of communication.

Ethical, legal, and professional concerns were the focus of a number of early research studies exploring these new kinds of psychotherapeutic methods. Humphreys, Winzelberg, and Klaw (2000) indicated that a psychologist participating in Internet-based therapy with a group was taking on new ethical professional risks. A number of strategies were suggested that mental health professionals could employ when participating in IBP in a professional role, in the role of a peer, and even in those cases when an individual might embody both roles: "we hope the strategies here as well as a general attitude of caution will help psychologists make the most of this powerful new communication medium" (Humphreys, Winzelberg, & Klaw, 2000, p. 496). At this early stage in the advent of the Internet, even as scholars wondered and worried about the possibilities for

the Internet as a communication strategy, they still recognized the powerful ways that this new medium would be transforming the field of psychology and the important role that ethical, professional, and legal considerations would play in this transformation.

In exploring these considerations, different researchers came to different conclusions about what the future might look like in terms of the relationship between traditional, in-person therapy and Internet interventions, or what many researchers eventually took to calling online therapy. In their review of internet interventions in use at the time of publication, Ritterband et al. (2003) acknowledged that although the Internet was a viable option for treatment of some psychological problems, “It is unlikely that Internet interventions will replace FtF psychotherapy” (p. 533). Carlbring and Andersson (2006) suggested similar caveats and expressed concern for a lack of body language and verbal cues, which help practitioners guide their perceptions of the patient.

In the early years of the internet, data was transmitted through telephone line, which meant anyone with access to a phone line could in fact connect to the Internet. The introduction of cable lines and fiber optics increased the speed and amount of data computers could process, which made video-conferencing possible, “with audio and video synchronized in real-time” (Migone, 2013, p. 282). As discussed earlier in this review of the literature, text based communications were also made prevalent through the expansion of online software. Migone (2013) suggested that all online therapy communication be term “online psychotherapy” and those that were in-person and by other means “offline psychotherapy” (p. 282). This differentiation alleviated many of the

terms for psychotherapy provided through the Internet that continue to evolve and grow with the invention of websites and group forums. Migone (2013) also suggested that there was a need for differentiating between the psychoanalytical strategies used through the Internet, as opposed to the more traditional forms that were in-person. These strategies differed because of the lack of physical information, yet the body of research showed an acceptance toward intimate disclosure by patients and acceptance of therapeutic interventions.

More recently conducted research has focused on issues crucial to the safe and efficient practice and provision of IBP (Fitzgerald et al., 2010). Training to enhance and maintain technological competency, including technology used to verify identity and protect confidentiality remains crucial to IBP. Psychologist understanding communication-based legislation as it pertains to client rights and professional jurisdiction is another area of continuing concern, as legislation often changes in an effort to keep up with advancements in web-based technology. Clarification of terms of service, specifically emergency contact situations, and availability, response time to electronic communication, fees, and handling missed sessions are important concerns for psychologists providing IBP. In addition, it is imperative that psychologists providing IBP understand and adhere to professional guidelines, codes of conduct, and laws for the provision of IBP to minimize risk of liability while providing high-quality services.

As the Internet continued to evolve and become a popular method of communication, researchers in the field of psychology stopped providing general

overviews and speculative discussions about the possibilities of online therapy as an option that may or may not be realized. After the professional considerations were satisfied, researchers designed studies to prove the efficacy of therapeutic interventions to prove that the Internet provided viable options for therapy. These researchers (e.g., Barak, 1999; Castelnuovo et al., 2013; Christensen & Griffiths, 2000; Winzelber & Klaw, 2000) often analyzed the differences between in-person therapy and online therapy and explored specific methods for how the field of psychology might best utilize the Internet as an option for psychotherapeutic interventions with a variety of different patient populations. However, major issues still exist and continue to present themselves for online therapy. Such issues include patient privacy and confidentiality, computer training for and technical proficiency of providers, as well as shifting and evolving legal ramification and professional standards and codes of conduct (Fitzgerald et al., 2010).

Current Scholarship on Online Therapy

Within the last 10 years, research on the viability of Internet-based psychotherapeutic interventions have shifted from asking the question, “Is online therapy a viable option or not?” to asking, “How can we better understand and utilize these valuable new Internet-based strategies?” As a result, a number of current studies have been published on the following: types of patient populations that typically chose online therapy, types of online therapy interventions that were most effective for which patient populations, how practitioners utilized online therapy intervention most effectively and ethically, and many other important aspects of regarding the topic. Studies have explored

specific types of Internet interventions as viable options for a variety of specific patient populations and mental health issues, including, but not limited to, alcohol misuse and symptoms of PTSD (Brief et al., 2013); anxiety disorders, mood disorders and behavioral medicine (Andersson, 2009); clinically anxious adolescents (Spence et al., 2011); distressed adolescents (Dolev-Cohen & Barak, 2013); insomnia (Thorndike et al., 2013); and many more.

Many studies were published on specific types of internet interventions and how effective they were for specific patient populations. VetChange, an Internet-based cognitive behavioral therapy intervention, was conducted with veterans returning from combat and designed to help “reduce alcohol consumption, alcohol-related problems, and PTSD symptoms” (Brief et al., 2013, p. 890). Even more specifically, the returning combat veterans the researchers focused on were those returning from Operation Enduing Freedom (OEF; 2001 – ongoing) and Operation Iraqi Freedom (OIF; 2003 - 2011). Brief et al. (2013) concluded that their study provided significant support for the efficacy of VetChange, an eight-module, web-based intervention to reduce drinking and PTSD symptoms in returning veterans in the initial intervention group (IIG) and the delayed intervention group (DIG) between baseline and three months follow up. The researchers found that IIG participants showed greater decreases in drinking and PTSD symptoms between baseline and end-of-intervention than DIG participants did (Brief et al., 2013). However, DIG participants showed decreases in drinking and PTSD symptoms after participation in VetChange. The study was important for showing the effectiveness of

web-based intervention in general and in contributing to research on two major problems associated with veterans: alcohol abuse and PTSD. A major limitation was the attrition rate from the intervention (only 34% of IIG and 39% of DIG participants completed all 8 modules). Brief et al. (2013) observed that completion rates of web-based interventions might be problematic because researchers often fail to report completion rates on web-based interventions and completion rates vary widely.

Beyond the United States, alcohol abuse has been shown to be a global problem that contributed to other diseases (Blankers et al., 2011). Countries have grappled with this problem through social programs, yet there remains a significant treatment gap, which may be bridged through innovations in treatment options, such as online therapies. An equal number of male and female participants entered the Blankers et al. (2011) randomized control study which utilized cognitive-behavioral therapy over the Internet. The study included participants with an average age of 42, who were studied using self-help Internet therapy, therapist-assisted Internet therapy, and no therapy at all. Blankers et al. (2011) found that both the self-help Internet therapy group and the therapist-assisted Internet therapy group demonstrated a decline in alcohol consumption, whereas participants of the control group did not. In addition, the therapist-assisted Internet therapy group demonstrated a greater decline in alcohol consumption than the self-help Internet therapy group at 6 months post-randomization. Like the Brief et al. (2013) study, the Blankers et al. (2011) study was important for showing the effectiveness of Internet-based therapy for alcohol abuse treatment. However, one significant limitation to this

study was that all participants were well-educated and had access to the Internet, which does not address issues of access and effectiveness for other demographic populations.

Interventions for problem drinking were developed as traditional in-person services. The advent of the Internet allowed for a varied approach to alcohol abuse, which hoped to capture the problem drinkers that failed to obtain treatment (Postel et al., 2011). Through a randomized sample, Postel et al. (2011) found that participant populations varied between choices for online therapy versus in-person and did not test for the efficacy between programs. Client characteristics in this study were age, gender, level of education, work situation, and alcohol treatment. Only age coincided with this research study. More women chose to be involved in online therapy with an average age of 45 years and were highly educated (Postel et al., 2011). Moreover, for first time seekers of treatment, the anonymity of alcohol treatment online was a primary motivator.

Similarly, another study focused on how patients responded to treatment using an Internet-based intervention program called Deprexis (Moritz, Schoder, Meyer, & Hauschildt, 2013). Deprexis was designed as an online self-help program of 10 modules that delivered cognitive behavioral therapy. No patient-therapist interaction was involved. Patient attitudes toward the online strategy revealed that online self-help alleviated mild depression (Moritz et al., 2013). Moritz et al. (2013) also suggested that patients with negative attitudes toward psychotherapy were higher for patients with severe problems, regardless of the modality of treatment, and barriers to treatment became paradoxical for the therapists. Patient concerns about poor relationships with therapists, skepticism of

psychotherapy, and stigma associated with using psychotherapy were found to be no different than in-person interventions (Moritz et al., 2013). The researchers found the challenges of treating severe depression through online programs to be no different from in-person interventions (Moritz et al., 2013).

Therapeutic interventions utilizing CMC have proved to be efficacious for the treatment of depression, especially cognitive based interventions (Pugh et al., 2014). Participants of Internet cognitive behavioral therapy (ICBT) developed a stronger relationship with their online therapist, than their in-person therapist (Pugh et al., 2014). In their qualitative case study, Pugh et al. (2014) followed the treatment program of an individual taking part in an ICBT 12 module therapist-assisted treatment for depression. The patient had weekly phone meetings with the therapist, and email exchanges as well (Pugh et al., 2014). Because of the ease and availability afforded by electronic communication, the patient spent more time in communication with the therapist than would have been possible through in-person meetings that required travel and set appointment times (Pugh et al., 2014). Also, the patient spent time doing the required reading and self-discovery, as would have been prescribed in in-person counseling (Pugh et al., 2014). Pugh et al. (2014) found that the patient participating in the 12 module ICBT self-reported a reduction in anxiety and depression. A system of this nature was efficacious for the individual and predicted that the ICBT would work for symptoms of depression and anxiety in other individuals (Pugh et al., 2014).

Many people have suffered from general anxiety disorder and were unable to obtain proper treatment through trained clinicians. Researchers found another debilitating disorder, like depression, general anxiety disorder, to be treatable with cognitive-based therapies (Paxling et al., 2011). To allow better access to treatment, Paxling et al. (2011) developed eight therapist-guided ICBT treatment modules for a randomized study, primarily comprised of middle-aged females who answered Internet and newspaper ads for the study. Anxiety symptoms for the patients were mild to moderate. The researchers concluded that ICBT was an efficacious treatment for patients suffering from general anxiety disorder, as well as a promising complement to in-person treatment. In addition, they proposed that ICBT might reduce patient costs by overcoming distances needed to travel to specialist clinics, also potentially improving access and decreasing the treatment-demand for treatment gap (Paxling et al., 2011).

CURB, A minority based ICBT program, was designed to help disadvantaged adolescent minorities with their depression (Saulsberry et al., 2012). Focused treatment through CURB accounted for the cultural and environmental differences within this portion of society (Saulsberry et al., 2013). Moreover, socio-economic factors were noted as having significant differences between minority and Caucasian adolescents, which were addressed in the CURB program (Saulsberry et al., 2013). Because of the low cost and easy access to treatment, CURB was found to be a successful intervention program for minority adolescents (Saulsberry et al., 2013). Age of the participants was not prohibitive for this program (Saulsberry et al., 2013).

Anxiety disorders in adolescents have been treated successfully through CBT; however, the major problem was that only 25% of clinically anxious young people received professional help (Spence et al., 2011). Some known factors with regard to this problem were therapist availability, costs, cultural stigma, and family time constraints (Spence et al., 2011). Many parents of adolescents and the adolescents themselves were unable to overcome the socio-economic factors that inhibited a positive view of therapy (Spence et al., 2011). In their 12 week study, Spence et al. compared minimal therapist support of ICBT with in-person treatments and found the efficacy of ICBT to be equal to in-person therapy. Clinicians extended their reach to typically inaccessible patients through ICBT, which addressed several of the major factors preventing interventions for adolescents (Spence et al., 2011). This research study included several of the factors found in Spence et al. (2011): preventing patient participation in therapeutic services and investigating to what extent each factor will determine whether or not a potential patient seeks therapy.

Pharmacotherapy for insomnia patients was considered a successful short-term intervention, yet there was a gap in the body of research with regard to long-term success. Insomnia patients have received CBT and experienced positive outcomes (Thorndike et al., 2013). Comorbidity was often associated with insomnia patients, which coincided with the success of CBT to treat more than the symptoms and focus on the "maladaptive behaviors" (Thorndike et al., 2013, p. 1079). Many of the same problems in the Spence et al. (2011) study coincided with the Thorndike et al. (2013) study, such as costs, lack of

professionals, and accessibility. Moreover, the limitations of the Thorndike et al. (2013) indicated that participants in the study were primarily educated Caucasian adults, which showed a lack of diversity from other sectors of society. The purpose of the present study is to understand whether a relationship exists between demographic variables, such as age and race, and a client's preference for a specific method of administered psychotherapy, including online therapy.

In their meta-analysis, Voinescu, Szentagotai, and David (2013) suggested that ICBT for insomnia was effective for participants without comorbidity. Similar to Thordike et al. (2013), pharmacotherapy was indicated as a common therapy for short-term solution; however, the side effects of sedatives and hypnotics had undesirable side effects, which indicated a need for CBT. A major mental health concern, insomnia has affected a quarter of the population in a variety of ages and both genders (Voinescu et al., 2013). Advantages for ICBT coincided with the two previous studies. The disadvantages perceived among participants were discussed and two new findings were confidentiality and therapeutic alliance (Voinescu et al., 2013). However, Voinescu et al. (2013) did not analyze individual personalities and cultural differences were not analyzed for correlation with the disadvantages, which was the focus of this research study.

As reviewed in the literature, many psychological disorders carry a social stigma that inhibit people from seeking help. Aardoom et al. (2013) reviewed 21 studies of online interventions for eating disorders and found that, even though there was a wide range of methodologies and outcomes, the Internet offered an efficacious media for

treatment of eating disorders. Of the population characteristics, women comprised an overwhelming majority and the mean age for participants ranged from adolescents to middle-aged adults (Aardoom et al., 2013). Missing from the Aardoom et al. (2013) study was information on region and personality types, which I investigated in this study.

Behavioral Health Choices and Summary

Barriers to Behavioral Health Services

Because of the lack of properly trained professionals (Cartreine, Ahern, & Locke, 2010) and career burnout within the profession (Acker, 2011; Paris & Hoge, 2010), the abundance of efficacious interventions available have created an interesting challenge for mental health care. The science of psychotherapy and therapeutic interventions are available and target many personality disorders, yet the lack of properly trained professionals and overwhelming caseloads with patients exhibiting severe disorders have created a barrier for people in need of help (Acker, 2011; Cartreine et al., 2010). These conditions lead to staffing shortages at the public facilities and increased costs to these facilities, because of employee turnover (Paris & Hoge, 2010; Shin et al., 2013). Increased costs for training and turnover lend to the already financially burdened system and lessen the ability for proper care.

Another barrier for mental health care is the ability for low income patients to seek proper interventions because of monetary considerations (Smaldone & Cullen-Drill, 2010). Prior to the implementation of the Affordable Care Act (2010), many people in the United States lacked health insurance coverage for mental health services. Furthermore,

health insurance corporations have placed limits on coverage, higher deductibles, and office visit limits on mental health services (Cartreine et al., 2010; Cullen-Drill, 2010). Health care parity or equality laws have allowed insurance companies to create a variety of plan coverages, all of which are not uniform and easily navigable by the average American (Smaldone & Cullen-Drill, 2010).

These major concerns affect a patient's choice for proper behavioral health services and create barriers that are in some cases impossible to overcome. Moreover, unlike consumer decisions, Moritz et al. (2013) found that patients with more severe cases of depression and mental illness did not seek professional help. Access to proper health care and the willingness to seek help were major barriers for potential clients.

Another concern for the mental health care industry is one of perception. Midlarsky, Pirutinsky, and Cohen (2012) found that cultural and religious affiliations create perceptional barriers to seeking psychotherapy. Midlarsky et al. (2012) also suggested that self-reliance and individualism, personal characteristics deeply embedded in the American psyche, prevented people from seeking help. However, according to Casey et al. (2013), barriers to therapy affected choices even with Internet familiarity and ubiquity. Educational services and training significantly improved the participation of people in need of mental health services (Casey et al., 2013; Woodarski & Frimpong, 2013). Furthermore, training mental health professionals in the promotion of therapy services was found to be efficacious, delivering the proper information and guidance necessary to perform and encourage therapy (Casey et al., 2013). Many of these cultural

barriers may be overcome through positive reinforcement of the benefits of behavioral health programs.

Making the Choice to Seek Therapy

Mental health professionals provide a service, whether it be through an organization, institution, or business, and the attraction of their services can be found in consumer experiences. Physician recommendations are a major source of patient experiences prior to making a choice. According to Yearwood (2012), pediatricians recommended mental health care to their patients, which was a policy developed by the American Academy of Pediatrics. A referral from a pediatrician lessened the amount of research necessary for a patient to identify a qualified mental health practitioner. Furthermore, the referral from a physician prevented poor decision making by the patient while they were distressed (Perle, et al., 2011).

Current research has focused on consumers making choices about their physical health care; however, there is a gap in the literature with regard to choices for behavioral health services. People seeking behavioral health services mimic consumers looking for their best options; however, as suggested in the previous section, mental health care has a stigma and many barriers for the general public to overcome. There is also the differentiation of decisions between product and service, where “consumers rely heavily on ‘experience’ properties. Such properties include, for example, courtesy, access, responsiveness, and communication” (Lipscomb, Shelley, & Root, 2010, p. 322). Lipscomb et al. (2010) suggested a decision making model that coincided with marketing

theory's five-step model and previous research, incorporating the needs of a mental health patient into a four-step model:

1. Patient recognizes a problem.
2. Decision that therapy is an option.
3. Actively seeking therapy.
4. Making contact with mental health providers.

From this list, the first two steps rely upon the patient's ability to understand that there is a mental health problem needing to be addressed, which is one of the biggest challenges for the behavioral health industry and society.

Lipscomb et al. (2010) found that pre-selection of a patient's mental health provider coincided with clinical data regarding "a positive therapeutic alliance" (p. 328). Having an honest, trustworthy, and confident provider were the preferred traits, regardless of the demographics of the participants (Lipscomb et al., 2010). In their conclusion, Lipscomb et al. (2010) suggested that the greatest source of information bearing the most weight for patients to choose a mental health specialist was through personal recommendations, followed by credentials and experience. Patients needed a sense of comfort, familiarity, and confidence in the professional they choose. Because of these factors, marketing of services to convey these ideas were suggested as a way to cross the social and cultural barriers in place. There is a gap in the literature concerning the therapeutic choices patients made and the mode of communication, which was the focus of this study.

Extraversion/Introversion (E/I) and Trait Theory

Trait theory undergirds a major branch of the study of personality in psychology, and holds that individuals' preferences, their patterns of thoughts and behaviors are reflected in their personality traits (Tsao, 2013). Allport (1961) argued that personality was a dynamic component of individuals' psychological systems that contributes to the uniqueness of their behavior and thinking. Personality traits represent specific components of individuals' personalities that may be used to understand how individuals think, behave, and make decisions (Allport, 1961). Personality traits remain relatively stable over time and represent enduring individual characteristics that show consistency across a range of situations and behaviors (Tsao, 2013). Consequently, researchers have used trait theory and personality traits to study patterns of human motivation and behavior in relation to a range of everyday activities (Tsao, 2013). Because Internet usage is a part of most people's everyday lives, Tsao (2013) argued that research was needed on the relationship between personality traits and Internet usage. It seems logical also to examine the relationship between personality traits, especially the interpersonal traits of extraversion and introversion, and individuals' decision to seek online therapy.

The Five-Factor Model, or Big Five, has become a commonly used model in the study of personality traits in psychology (Tsao, 2013). The Big Five consists of the personality traits of agreeableness, openness, extraversion, consciousness, and neuroticism. Researchers have examined whether personality traits predict treatment outcomes for online therapy (Spek, NyKlicek, Cuijpers, & Pop, 2008); however, it is not

known if personality traits are connected to individuals' decisions to seek online therapy. Because extraversion and introversion are interpersonal dimensions that involve social interaction and engagement, they may be personality traits that can predict individuals' decisions to seek online therapy. Research has shown that online communication affords individuals a degree of anonymity that influences Internet use (Spottswood et al., 2013; Tidwell & Walther, 2002; Walther, 2005, 2007). Although extraverted individuals tend to be outgoing and there has been emerging research on online behavior and personality traits, researchers have not reached consensus on whether extraversion or introversion are connected to the likelihood of Internet use generally or the likelihood of seeking out online theory specifically (Tsao, 2013). In addition, the lack of research on the connection between E/I and the likelihood of seeking online therapy represents a gap in the literature on factors predicting individuals' decisions to seek out online therapy. Consequently, this study is designed to help fill this gap by providing information on the connection between the interpersonal dimensions of E/I and individuals' decisions to seek online therapy.

Demographic and Choice of Therapeutic Modality

From this review of the literature, both in-person and online therapy have been found to be efficacious modalities when treating behavioral health disorders. For the purposes of this study, descriptive statistics give insight into volunteer participation, yet do not present a predictive analysis for their choice to volunteer. Many of the studies presented descriptive analysis of the participants' age (Blankers et al., 2011; Cristea et

al., 2013; De las Cuevas & Penate, 2014; Midlarsky et al., 2012; Musiat, Goldstone, & Tarrier, 2014; Postel et al., 2011; Townsend et al., 2012); gender (Cristea et al., 2013; De las Cuevas & Penate, 2014; Midlarsky et al., 2012; Musiat et al., 2014; Postel et al., 2011; Spottswood et al., 2013); and race (Midlarsky et al., 2012; Musiat et al., 2014; Townsend et al., 2012). Researchers have also described personality types and usage of the Internet (Bell, 2007; Odaci & Celik, 2013; Pugh et al., 2014); however, a gap in the research literature appears with regard to choices of therapy and the participants' personality type of introversion or extroversion, as well as whether demographic factors influence the preferred modality of therapy.

Musiat et al. (2014) was the only study that described the attitudes and expectations between in-person and online therapy, yet within this study, age and gender were used as descriptive statistics and not predictors. Musiat et al., (2014) performed a random control study, utilizing a repeated measures MANCOVA on a population of 490 individuals located in the general area of London, England. The participant ages ranged from 18 to 78, with the mean age of 27; 80% of the participants were female; and race was primarily white. Musiat et al., (2014) found that participant expectations when choosing in-person as a mode of therapy was higher than online therapy with regard to efficacy, feedback, and support from a therapist. Furthermore, the researchers found that study participants were significantly more likely to prefer and utilize in-person therapy. Almost all of the participants were computer literate and had daily access with a computer, which eliminates access to online therapy as a limitation for participants. Only

convenience with location and time, and anonymity were considered to be the appealing options that online therapy offered. The findings of this study indicated that potential clients expect in-person interactions with a mental health profession to be more efficacious and supportive, because of the professional's expertise and guidance through the process of healing.

Summary

Traditionally, psychotherapy or psychotherapeutic services have been provided by means of in-person interactions between practitioner and client. The combination of verbal and nonverbal communications assisted the practitioners with assessing their client's mental state. An intimate bond of disclosure and proximity was suggested through these in-person interactions, which codified the dyad for psychotherapy for decades. In the 1950's, some clinicians commented on the viability of tele-health as a way to compensate for the lack of services being provided to rural and special needs clients (Migone, 2013; Perle et al., 2011). Practitioners understood that the growing need for therapeutic services could be compensated for through technology.

As discussed in this review of the literature, social information processes through CMC (Tidwell & Walther, 2002; Walther, 2005; Walther et al., 2010) gave a theoretical framework for the efficacy of online psychotherapy. Text based messages contained cues about personality that may have been typically delivered through verbal communication or body language (Hancock, 2004; Jiang et al., 2013). Many of the attributes once

thought to only appear in in-person interactions were found in text based messages, which developed intimate and trusting dyadic relationships (Jiang et al., 2013).

Online therapy services have developed into efficacious tools for clinicians to utilize for current and potential clients (Paxing et al., 2011; Postel et al., 2011; Voinescu et al., 2013). Many of these services were patient based, unassisted by therapist and proved to be helpful for patients seeking therapy (Aardoom et al., 2013). Wodarski and Frimpong (2013) found that the applications of online therapy for social work meant increasing the scope and reach of social programs, treating many of the mild to moderate psychological disorders with success. In addition, limited access to mental health services has been a growing concern, and the hardest hit populations are those individuals living in poverty, lacking health insurance and education, and suffering from medical comorbidities (Cavaliere, 2014; Jones et al., 2014). Online therapy represents a cost effective, far-reaching alternative to in-person therapy (Brief et al., 2013; Moritz et al., 2013) and may be an excellent fit for budget strapped government departments and help to reduce provider turnover and burnout. Online therapy may also help providers reach underserved individuals in areas of low provider availability, such as individuals in low socioeconomic and rural communities (Shin et al., 2013).

With the incorporation of computers into the everyday lives of the general populace, evolving technology associated with the Internet has developed familiarity and comfort for end users. Also, regions and countries throughout the world have increased infrastructure and access to the Internet, creating a society moving into the information

age. As technology enhances daily routines, cultural, and psychological boundaries have been set aside to allow for more advantageous processes. Although scholars have agreed that clients may choose to pursue in-person therapy or they may choose to pursue online therapy, there have been varying conclusions as to what might influence clients to make these choices (Dolev-Cohen & Barak, 2013; Brief, Rubin, Keane, Enggasser, Roy, Holmuth, & Rosenbloom, 2013; Bell, 2007; Cunningham, Selby, Kypri, & Humphreys, 2006; Christensen & Griffiths, 2000).

Conclusion

It is clear based on the literature reviewed in the previous two sections that researchers in the field have approached the problem of online therapy in a number of ways. This section more specifically describes the chosen constructs of interest and the methodology of this study and how they relate to the scopes of other studies done in the field. This section also includes a justification of the selection of the variables chosen for analysis in this study. In doing so, this section reviews and synthesizes key studies related to each of the variables chosen for study, and situates this research project amongst these studies and their subsequent research questions. The methodology of this research study will discuss the variables that were included in the studies reviewed, as well as the others that were missing from this review of the literature. Age and gender were accounted for in many of the patient populations; however, missing was the race, region or geographic area from which the participants were pulled, as well as the self-described personality

type, with respect to E/I. These variables will be discussed further in the following chapters.

Chapter 3: Research Method

Introduction

As previously stated in Chapter 1, psychotherapy or psychotherapeutic services have been provided via in-person interaction between practitioner and client. Also known as *in-person counseling*, these services provide psychologists with the opportunity to interact with their clients both through verbal and nonverbal communication. As the use of the Internet becomes more influential, both the psychologist and the client may use this medium to expand access to psychotherapy (Vilhauer, 2013; Mallen et al., 2003). The purpose of the research was to explore the factors that might influence an individual to choose online therapy over in-person therapy. In Chapter 3, I discuss the research design used to address this purpose, the target population of the study, the sampling and data collection procedures used to collect the data, the instruments used, and the data analysis plan to address the purpose. In addition, I discuss ethical considerations of the participants.

Research Design

I used a quantitative correlational design. First, a quantitative design is one that focuses on finding statistically significant effects from data that can be quantifiable (Howell, 2010). Thus, the data collected can be expressed numerically. The variables of interest in the study, specifically the likelihood of using Internet interventions, age, region, race, and patient characteristic, are quantifiable. By using the quantitative

approach, the results of the analyses for the sample will be generalizable across the larger-studied population (Creswell, 2005).

Regarding experiments, true experimental designs are for those where the researcher has control over the treatment variable. They can randomly assign participants into control and treatment groups, and participants have an equal chance for both. Quasi-experimental designs are for when the researcher cannot randomly assign the participants to the control groups. This could be when different classrooms are labeled control and treatment (and thus the students are not randomly assigned). This could also be when the researcher tests for demographics, because it is impossible for a researcher randomly assign a demographic to someone.

A quasi-experimental design is one that is used to find differences between groups (Creswell, 2005). A true experimental design is one that all groups of the study can be randomly assigned with a control group in place. However, because I compared differences in the likelihood to use online on no intervention or manipulation of patient characteristics, I could not use a true experimental or quasi-experiment design. Therefore, I used the correlational design instead.

A correlational design is one that looks to find relationships between two or more sets of variables (Creswell, 2005). In the study, I examined the relationship between age, region, race, personality traits, and the likelihood to use online interventions. I assessed the relationship between likelihood to use online interventions and region, race, and personality trait by tests of differences. Because age was measured as a continuous

variable (the actual participant's age), there were not any tests of differences conducted. Instead, I correlated the likelihood and age variables together. Because I conducted a correlation, the correlational design was appropriate.

Qualitative designs were not appropriate for this study because the purpose is to identify statistical relationships and not search for perceptions, feelings, or attitudes (Johnson & Christensen, 2014). Qualitative data analysis centers on content rather than on inferential techniques and require structured interviews and personal records, with the researcher being the main data collector (Gliner, Morgan, & Leech, 2010). Therefore, the decision was made to focus on a quantitative approach to answer the research questions of the study.

Target Population and Participant Selection

The target population for the present study was current or prospective therapy patients. Current or prospective clients are those who are currently or are interested in seeking therapy. I used Survey Monkey to purchase survey responses. The Survey Monkey population is regularly screened to ensure the members are an accurate representation of the U.S. population. Currently, at least 30 million people complete Survey Monkey surveys each month (Millions are ready, 2015). Inclusion criteria to take part in the study is that the participant must be at least 18 years of age; able to read, understand, and answer the questions truthfully; and the participant must be currently taking part in or interested in therapy. If a potential participant did not meet any of the

aforementioned inclusion criteria, I removed them from the study and they were unable to move on to answer the survey questions.

To assess the research questions, I used G*Power 3.1.7 to determine sample size. Because race had the most groups, it was used to assess the sample size needed for this study. The racial categories included Caucasians, African Americans, Asians, Hispanics and other. Using a medium effect size, and alpha of .05, and power of .80, the required sample size for an ANOVA with four groups was 180. Therefore, at minimum, 180 participants would need to be gathered to achieve empirical validity (Faul, Erdfelder, Buchner, & Lang, 2013).

Sampling and Data Collection Procedures

I collected data from Survey Monkey. Potential participants were informed by Survey Monkey if they qualified for the study. Participants were given a link to the survey page by Survey Monkey, where they were given an electronic consent form that they completed prior to taking the rest of the survey. The electronic consent form was the first screen that was presented when a participant clicks on the survey link. The consent form included the inclusion criteria. To continue with the study, participants would have to be 18 years old, capable of reading and answering the questions truthfully, and must be currently or interested in seeking therapy. If a participant met all of the inclusion criteria and agreed to the consent form, the survey page automatically loaded. Once the participant completed the survey, the participant received their compensation and their data automatically saved on the Survey Monkey protected servers. Data collection

continued until at least 180 participants completed the survey. Once the data is collected, I entered it into SPSS version 23. I did not have direct contact with the participants before the survey was completed.

Once collected, I screened the data for missing observations and outliers. Univariate outliers were tested for by the examinations of standardized values. Standardized values of 3.29 or greater were removed, as these values represented observations that were more than 3.29 standard deviations from the mean (Tabachnick & Fidell, 2012). I excluded participants that failed to complete large portions of the survey (such as leaving the survey early) from the dataset.

Recruitment of Participants

I recruited participants from the surveys disseminated through Survey Monkey. Survey Monkey notified potential participates that they may qualify for this study. Inclusion criteria to take part in the study is that the participant must be at least 18 years of age; able to read, understand, and answer the questions truthfully; and the participant must be currently taking part in or interested in therapy. If a potential participant did not meet any of those inclusion criteria, they were removed from the study and unable to move on to answer the survey questions.

Instrumentation

To address the research question, only a demographic survey was necessary. The demographic survey included questions of exact age in years, region, race, and

personality trait of the participant. Additionally, the question on the likelihood to use online interventions was.

Operational Definitions of Variables

Age was measured by the survey question “What is your age?” Participants can be either male of female and be between the ages of 18 years old and 64 years old for inclusion. Participants were asked to present their age at the time of taking the survey. Age was considered as a continuous variable.

I used race instead of ethnicity because race is considered to be the self-identification of social representation that is not based on biological, anthropological, or genetic factors (U.S. Census Bureau, 2014). Race was measured by the survey question “Which racial group do you most likely identify with?” Participants were given a selection of races including: White or Caucasian, Black or African American, Asian, Hispanic, and Other. Definitions to the racial categories were the following: (a) White or Caucasians—an individual who is related to people of Europe, the Middle East (western and southern Asia) or North Africa; (b) Black or African American—an individual having origins in any of the black racial groups of African; (c) Asian—an individual having origins in any of the Far East, Southeast Asia, or the Indian subcontinent; (d) Hispanic—an individual having origins from any of the Spanish or Latino descent; (e) Other—an individual from origins not pertaining to the definitions above or who identify with more than one race. Multi-race and races with low representation were collapsed into the “other” category. Race was considered a nominal variable.

Region was be measured by the survey question “Do you currently live in a rural region (small population, farm setting, country side setting etc.) or unban region (built up areas, such as cities or towns etc.)?” Participants were asked to specify if they live in a rural region or urban region. Region was considered as a nominal variable.

Personality trait was measured by asking participants to specify whether they consider themselves to be an introvert or an extrovert based on the descriptions included in Table 1.

Table 1

Characteristics of Extroversion and Introversion

Extroversion	Introversion
Has the desire to socialize with anyone.	Has the desire to socialize with only people they have already known.
Enjoys social contact and being in crowds.	Enjoys dealing with one or two people at a time.
Enjoys being enthusiastic.	Enjoys being more apathetic than enthusiastic.
Prefers to be assertive on issues.	Prefers hesitating and thinks logically prior to responding to others.

The Big Five Inventory (BFI) was used to assess E/I in this study. The BFI is a 44-item scale that measures five personality factors, including extroversion and introversion. The E/I scale of the BFI is a 8-item rating scale that requires respondents to indicate the extent to which they agree or disagree with certain statements, such as “I see myself as someone who… is talkative,” and “I see myself as someone who… generates a

lot of enthusiasm." Each item is rated on a 5-point Likert scale, ranging from 1 (disagree strongly) to 5 (agree strongly). Scores of three negatively worded items of the Extraversion dimension was reverse coded to have the same direction of measure with positively worded items. These include following items: "Is reversed," "Tends to be quiet," "Is sometimes shy, inhibited" (Appendix A).

Scores of the eight items for the extraversion dimension are summed to measure the variable of conscientiousness, with total possible raw scores ranging from eight to 40. Higher scores indicate higher levels of conscientiousness. The BFI has proven to be both valid and reliable, with alpha levels of the five scales ranging from .75 to .90 in U. S. and Canadian samples (John, Nauman, & Soto, 2008; Komarraju, Karau, Schmeck, & Avdic, 2011. Test-retest reliability of .79 has been indicated for the conscientiousness scale, with a test-retest interval of approximately two weeks (Rammstedt & John, 2007). Convergent and discriminant validity have also been well established, with high item intercorrelations r coefficient ranging from .87 to .90 (Rammstedt & John, 2007). Likelihood to use Internet intervention was measured by the E-therapy Attitude Scale (Finn, 2002). This 16-item instrument was constructed to measure attitudes toward online counseling in students (Centore, 2006). The items in the instrument are coded as 1=Strongly Disagree to 5=Strongly Agree, making it a 5-point Likert scale. The instrument contains items such as "E-therapy is as effective as in-person psychotherapy" and "I would refer a client to an online support group." All 16 items are summed to create a measure of attitudes toward online therapy, with higher scores indicating a higher support and belief that online

counseling is effective and ethical versus conventional therapy. Internal consistency of the instrument was at an acceptable level of .87, and the instrument showed a test-retest measure of consistency .81 (Finn, 2002). For this study, the wording of the instrument was modified to reflect the use of online therapy and in-person therapy, as well as make sure that it pertains to the target population. Individual item scores were aggregated, with higher scores indicating a higher Likelihood to use Internet interventions (Appendix B).

Data Analysis

Research data collected about persons seeking professional counseling were entered into IBM SPSS Statistics version 23.0. The descriptive statistical analysis described the main demographics and major attitudes of people seeking in-person therapy versus therapy received through the Internet. Region and race were also taken into account in the results. Means and standard deviations were calculated for the likelihood to use Internet interventions.

The main research question guiding this study is, among current or prospective clients, does age, region, race, and E/I contribute to the reported likelihood of choosing online therapy or in-person therapy? To investigate this overarching question, I conducted analyses related to the following four sets of hypotheses.

$H_0$1: There is no significant difference between the reports of likelihood to use online versus in-person interventions and age of the prospective client.

H_a1: There is a significant difference between the reports of likelihood to use online versus in-person interventions and age of the prospective client.

To examine Research Question 1, I conducted a Pearson correlation to assess if a relationship exists between the likelihood to use Internet interventions and age. Correlation coefficients can range from -1.00 to 1.00. Significant, positive coefficients indicate a positive relationship, where one variable increases, the other increases as well. Significant, negative coefficients indicate an inverse relationship between the two variables. Cohen's (1988) standards were used to assess the strength of the relationship. Coefficients that are at least .10 represent a weak relationship, at least, .30 represent a moderate relationship, and at least .50 represent a strong relationship. An alpha of .05 was used to assess the significance.

The following assumptions required to conduct the Pearson correlation were tested: Linear relationship, homogeneity of variance, and normal distribution or the error terms. Scatterplots and residual plots were used to test the assumptions.

$H_0$2: There are no significant differences between reports of likelihood to use online versus in-person interventions by the region of the prospective client.

H_a2: There are significant differences between reports of likelihood to use online versus in-person interventions by the region of the prospective client.

To examine Research Question 2, likelihood to use online interventions ranges on the scale from 1 (only likely to use in-person interventions), to 5 (equally likely to use in-person and internet interventions), to 9 (only likely to use online interventions). Region were measured with two levels: Urban and rural. An independent group t-test was computed to test the hypothesis. The assumptions needed to conduct the test, equality of

variances and independence between measures, were tested via descriptive statistics (Stevens, 2009). Homogeneity of variance assumes that both groups have equal error variances and were assessed using Levene's test. The assumption of independence within the measures was met because of the design of the study. One participant's scores did not affect the scores of other participants, which made the data independent of others' behavior. An alpha of .05 was used to assess the significance.

$H_0 3$: There are no significant differences between reports of likelihood to use online versus in-person interventions by race of the prospective client.

$H_a 3$: There are significant differences between reports of likelihood to use online versus in-person interventions by the race of the prospective client.

To examine Research Question 3, a one-way ANOVA was used to assess if a statistically significant difference exists in the likelihood of using online interventions by race. Assumptions related to this analysis were tested for homogeneity of variance and independence of the measures. Likelihood to use online interventions ranges on the scale from 1 (only likely to use in-person interventions), to 5 (equally likely to use in-person and online interventions), to 9 (only likely to use online interventions). An alpha of .05 was used to assess the significance.

$H_0 4$: There are no significant differences between reports of likelihood to use online based versus in-person interventions and the personality traits of introversion/extroversion of the prospective client.

H_a4: There are significant differences between reports of likelihood to use online based versus in-person interventions and the personality traits of introversion/extroversion of the prospective client.

To examine Research Question 4, an independent-groups t-test was computed to test the hypothesis. The assumptions needed to conduct the test, equality of variances and independence between measures, were tested via descriptive statistics (Stevens, 2009). Homogeneity of variance assumes that both groups have equal error variances and were assessed using Levene's test. The assumption of independence within the measures was met because of the design of the study. One participant's scores did not affect the scores of other participants, which made the data independent of others' behavior. An alpha of .05 was used to assess the significance.

The non-parametric equivalent to the tests above would be used in the event that the assumptions are violated. When using a nonparametric test, Lehmann (2006) recommends adding a 15% adjustment to the parametric equivalent to determine the required sample size. Adding the 15% adjustment makes the participant requirements 207 for four groups. For Research Question 1, a Spearman correlation would be used. The Spearman correlation is the non-parametric equivalent to the Pearson correlation and is appropriate when at least one of the variables is ordinal in level (Pallant, 2010). In this case, the likelihood of using the internet for interventions is measured on the interval scale. The Spearman correlation does not assume normality like the Pearson correlation does (Morgan, Leech, Gloekner, & Barrett, 2008). If there is a violation of the

assumptions in Research Questions 2 and 4, a Mann-Whitney U test would be conducted. The Mann Whitney U test is the non-parametric equivalent to the independent sample *t* test, and is the appropriate analysis to conduct when the goal is to assess if there were significant differences in an ordinal dependent variable by a dichotomous independent variable (Leech, Barrett & Morgan, 2008). In this case, the ordinal dependent variable is likelihood to use Internet interventions. The Mann Whitney U test would rank the participants responses to the likelihood of using online interventions and compare the ranks by region or introversion and extroversion to determine significance. If the assumptions are violated in the third research question, the Kruskal-Wallis test would be conducted. The Kruskal-Wallis test is the non-parametric equivalent of the ANOVA and is the appropriate analysis to conduct when the goal is to assess if there are significant differences in an ordinal dependent variable by a nominal independent variable with more than two levels (Leech, Barrett & Morgan, 2008). In this case, the ordinal dependent variable would be be the likelihood to use online interventions. If statistical significance was found for the Kruskal-Wallis test, then pairwise Mann Whitney U test would be conducted to assess for significant differences in the pairs of races.

Ethical Consideration

Prior to beginning the survey, participants were informed of the purpose of the study they are taking part in. They were given the risks and benefits of participating in the survey, my role in the study, and the estimated time to complete the survey. Participants were told that participation in the survey is completely optional and not

mandatory. The participants were able to leave the survey at any time. Additionally, contact information for my dissertations advisor, the IRB, and myself were included.

Both the paper and electronic surveys included directions for completing it and submission. To preserve anonymity of the participants, no identifiable information of the participants was collected. The data will be stored electronically on the PC owned by myself. The data will be kept for a period of five years after the research is completed, after which the data will be destroyed.

Threats to Validity

One threat to the external validity tends to be the inadequate representation of the target population. Steps were taken to limit the treat by having a wide inclusion criteria for the participants of this study, as well as the sampling technique used in this study. Threats to internal validity include instrumentation, experimental mortality, maturation and others. However, for a cross-sectional study such as this one, threats to statistical conclusion are determined by the validity and reliability of the measurements, the sampling procedures, and the variables included and accounted for. These threats were addressed by the selection of instruments with past psychometric properties and reliable measures, the construction of an adequate sampling method, and the variables selected being capturing most of the effect of interest.

Summary

The purpose of this research is to explore the factors that might influence an individual to choose online therapy over in-person therapy. Chapter three discussed the

quantitative correlational design used to address this purpose. The target population of current or prospective therapy patients were discussed, as well as the sampling and data collection procedures used to select and collect data from participants. All the instruments used were defined and supported. Different statistical methods were employed to assess the relationship between the factors of interest and the likelihood to use online therapy. Additionally, threats to both internal and external validity, as well as ethical considerations of the participants were discussed. Chapter 4 will present a summary of the sample collected, a description of the demographical properties of the sample, the tests of the assumptions for each statistical method, and report on the results statistical analyses.

Chapter 4: Results

Introduction

The purpose of this quantitative correlational study was to understand the extent to which demographic variables and the personality traits of E/I influence a client's preference for a specific method of administered psychotherapy. In this quantitative correlational study, I investigated the question:

1. Among current or prospective clients, do age, region, race, and introversion/extroversion (E/I) contribute to reported likelihood of choosing online therapy or in-person therapy?

The research questions were focused using the following hypotheses:

$H_0$1: There is no significant difference between the reports of likelihood to use online versus in-person interventions and age of the prospective client.

H_a1: There is a significant difference between the reports of likelihood to use online versus in-person interventions and age of the prospective client.

$H_0$2: There are no significant differences between reports of likelihood to use online versus in-person interventions by the region of the prospective client.

H_a2: There are significant differences between reports of likelihood to use online versus in-person interventions by the region of the prospective client.

$H_0$3: There are no significant differences between reports of likelihood to use online versus in-person interventions by the race of the prospective client.

H_a3: There are significant differences between reports of likelihood to use online versus in-person interventions by the race of the prospective client.

H_04: There are no significant differences between reports of likelihood to use online versus in-person interventions and the personality traits of introversion/extroversion of the prospective client.

H_a4: There are significant differences between reports of likelihood to use online versus in-person interventions and the personality traits of introversion/extroversion of the prospective client.

This chapter begins with a description of how the data were cleaned and if any outliers were removed. Then a description of the participant sample is given. This is followed by a brief summary of the findings and a detailed description of the data analysis and results. Finally, this chapter ends with a brief chapter summary and transition to the discussion.

Data Collection

Data was collected in a period of 2 days using the online survey website SurveyMonkey. This website was also used to identify and invite participants who were age 18 years or older, were able to read, and were interested in or currently seeking out therapy. Once the minimum number of respondents were acquired, the survey was closed and the data was uploaded into SPSS for pre-analysis data cleaning. There are no discrepancies from the data collection plan as described in Chapter 3.

Baseline Descriptive Characteristics

Prior to cleaning the data, the descriptive and demographic information of the sample was assessed. There were 301 total respondents for this study. The majority of respondents were White/Caucasian (*n* = 235, 78.1%) and most lived in an urban region (*n* = 219, 72.8%), which is representative of the population of interest. The gender of the respondents was almost evenly split between male (*n* = 135, 44.9%) and female (*n* = 160, 53.2%), which again is fairly representative of the population of interest. Respondents' age ranged from 18 to 96 (*M* = 23.41, *SD* = 13.67). Frequencies and percentages of the respondents' characteristics are presented in Table 2.

Table 2

Frequencies and Percentages for Respondent Characteristics

Sample Characteristic	*n*	%
Gender		
Male	135	44.9
Female	160	53.2
Missing	6	2.0
Racial group		
White/Caucasian	235	78.1
Black/African American	18	6.0
Asian	13	4.3
Hispanic	11	3.7
Other	18	6.0
Missing	6	2.0
Region		
Rural	76	25.2
Urban	219	72.8
Missing	6	2.0

Pre-Analysis Data Cleaning

The initial number of participants for this study was 301. Prior to the analyses, the data were checked for missing cases and outliers. First the data were examined for outliers. Standardized values were calculated for each of the variables used in the study. Tabachnick and Fidell (2012) suggest that scores with standardized values greater than 3.29 or less than -3.29 should be considered outliers. Based on this standard, a total of 2 cases contained data with outliers and were removed from the dataset. Data were also checked for significant amounts of missing data. It was found that 36 participants had a significant amount of missing data, so these cases were also removed from the dataset. Therefore, final analyses were carried out on a sample of 263 participants.

Results

Descriptive Statistics. Participants were literate adults who were interested in or seeking out therapy. The majority of participants were White/Caucasian (n = 210, 79.8%) and most lived in an urban region (n = 194, 73.8%). The gender of the participants was almost evenly split between male (n = 116, 44.1%) and female (n = 147, 55.9%). Participant's age ranged from 18 to 96 (M = 40.78, SD = 13.86). Frequencies and percentages of the participant's characteristics are presented in Table 3.

Table 3

Frequencies and Percentages for Sample Characteristics

Sample characteristic	*n*	%
Gender		
Male	116	44.1
Female	147	55.9
Racial group		
White/Caucasian	210	79.8
Black/African American	16	6.1
Asian	13	4.9
Hispanic	9	3.4
Other	15	5.7
Region		
Rural	69	26.2
Urban	194	73.8
Personality		
Introverts	119	45.2
Extraverts	144	54.8
Age (y)		
18–24	67	25.5
25–44	65	24.7
45–64	54	20.5
65+	25	9.5

Note. $N = 263$.

External Validity. To determine the external validity of the sample, the sample characteristics were compared to the national population characteristics through the use of the US Census data. The amount of females in the national population is 50.8% (males = 49.2%), which is similar to the sample. For racial group, White/Caucasian made up

72.4%, Black/African American made up 12.6%, Asian made up 4.9%, Hispanic made up 16.3% and Other made up 4.0%. This varies slightly in some groups, but is still very representative of the sample. Those living in urban regions (80.7%) compared to rural regions (19.3%) was also a similar representation of the sample. However, the comparison of age to the national average was not as representative. The U.S. Census data showed that 18 to 24 years made up 9.9% of the population, 25 to 44 years made up 26.6% of the population, 45 to 64 years made up 26.4% of the population and 65 years and older made up 13.0% of the population. Even though the sample age groups of 25 to 44 and 45 to 64 were slightly different than the population, overall, the sample was representative of the population.

The only aspect on which the sample differed from the population was the personality type. Myers, McCaulley, Quenk, and Hammer (1998) showed that the amount of introverts (50.7%) and extroverts (49.3%) were near equal in the national population. These results are slightly different than the current sample, where introverts (45.2%) made up a slightly smaller amount of the sample than extraverts (54.8%). Although this is not far off from the national sample, this could be because of the instrument selection as the national report is based on the Myers-Briggs Type Personality Scale rather than the Big Five Inventory. The full limitations of this will be discussed in Chapter 5.

The present research was guided by the overall research question: Among current or prospective clients, do age, region, race, and introversion/extroversion (E/I) contribute to reported likelihood of choosing online therapy or in-person therapy? The following

analyses were run to assess each hypothesis that represented the overarching research question.

Hypothesis 1. To assess the relationship between age and use of online therapy, a Pearson product-moment correlation was conducted. Prior to analysis, the assumptions of linearity and homoscedasticity were assessed. The assumption of linearity was examined using a P-P plot (see Figure 1). This plot did not deviate strongly from a linear pattern, and thus the assumption was met. Homoscedasticity was then assessed using a residuals scatterplot (see Figure 2). Homoscedasticity checks that variance in scores are approximately equal for all values of the dependent variable (Pallant, 2013). The data did not deviate strongly from a random rectangular distribution, and thus this assumption was met as well.

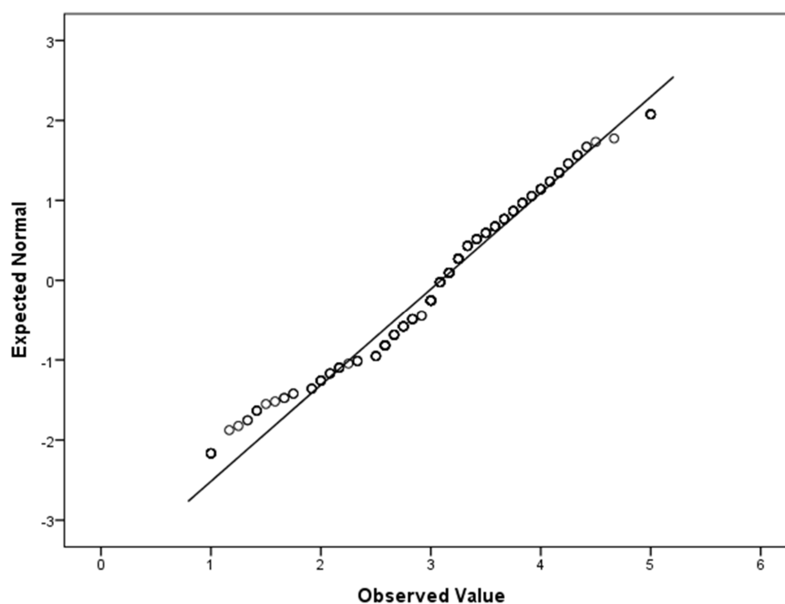

Figure 1 Normal P-P Plot to assess linearity for age and likelihood to use online therapy

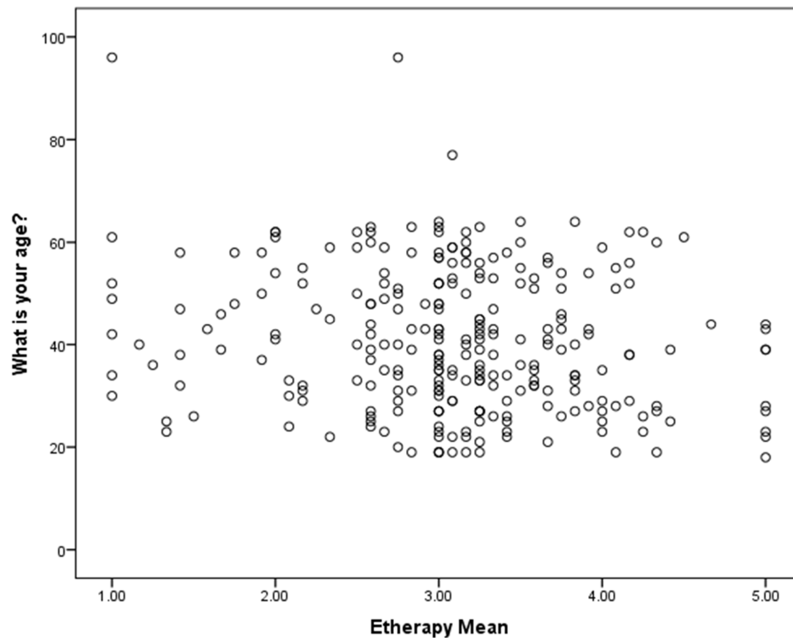

Figure 2 Residuals scatterplot for homoscedasticity for age and likelihood to use online therapy.

Results of the Pearson product-moment correlation between age and use of online therapy indicated a significant correlation, r (262) = -0.16, $p < .05$. According to Cohen (1988), this corresponds with a small negative association. This negative association indicates that as age increases, the use of online therapy decreases. Results of this Pearson product-moment correlation are presented in Table 4.

Table 4

Pearson Product-Moment Correlation Between Use of Online Therapy and Age

Variable	Use of online therapy
Age	−0.16**

Note. N = 263. ** indicates significance at $p < .01$.

To further assess this hypothesis, age was split into four groups (18–24, 25–44, 45–64, 65+ years). An analysis of variance (ANOVA) was conducted to determine whether there were significant differences in likelihood to use online therapy by Age Group. Prior to the analysis, assumptions of the ANOVA were examined. Levene's test for equality of variance was used to assess whether the homogeneity of variance assumption was met. The homogeneity of variance assumption requires the variance of the dependent variable to be approximately equal in each group, represented by each combination of factor levels in the independent variables. The result of Levene's test was not significant (p = .900), indicating that the assumption of homogeneity of variance was met.

The overall model was significant, F (3, 259) = 0.19, p = .038 (Table 4). This indicates that there were significant differences in the likelihood to use online therapy by age group. The means and standard deviations are presented in Table 6. To determine the mean differences by group, Tukey post-hoc tests were conducted. No other significant differences were found.

Table 5

Analysis of Variance Table for Likelihood to Use Online Therapy by Age Group

Variable	*df*	*SS*	*MS*	*F*	*p*	η^2_p
Between groups	3	5.78	1.93	2.84	.038	0.03
Within groups	259	175.34	0.68			

Table 6

Means and Standard Deviations on Age Group Scores by Likelihood to Use Online Therapy

Age group (y)	*M*	*SD*	*n*
18–24	3.30	0.84	30
25–44	3.16	0.85	137
45–64	2.95	0.76	93
65+	2.28	1.12	3

Hypothesis 2. Next, to examine the likelihood of choosing online versus in-person therapy by region, an independent samples *t*-test was performed. Prior to analysis, the assumptions of the independent samples *t*-test were assessed. The assumption of normality was assessed using the Kolmogorov-Smirnov Test and was found to be violated ($p < .001$). However, Stevens (2009) states that this assumption may be violated with relatively little harm in the *t* family of tests. The assumption of homogeneity of variance was assessed using Levene's Test of Equality of Error Variances. The results of Levene's test were not significant ($p = .774$), indicating that variances are homogenous and that the assumption was met. The independent *t*-test between region and use of online therapy was not significant, $t(261) = 1.00$, $p = .318$. This suggests that whether or not a participant lived in an urban or rural region did not significantly affect their likelihood to use online versus in-person therapy. Table 7 presents the results of the independent samples *t* -test

Table 7

Group Differences for Likelihood to Use Online Therapy by Region

	Rural		Urban			
	M	*SD*	*M*	*SD*	*t*(261)	*p*
Likelihood to use Online Therapy	3.18	0.86	3.06	0.82	1.00	.318

Note. $N = 263$.

As an additional analysis, a Mann-Whitney two-sample rank-sum test was conducted to examine whether there were significant differences in likelihood to use online therapy between the levels of region. The Mann-Whitney two-sample rank-sum test is a non-parametric alternative to the independent samples *t*-test and does not share the independent samples *t*-test's distributional assumptions. There were 194 observations in-group Urban and 69 observations in-group Rural. The results of the Mann-Whitney U Test were not significant, U = 6314, $z = -0.70$, $p = .484$. The mean rank for group Urban was 130.05 and the mean rank for group Rural was 137.49. This suggests that the distribution of likelihood to use online therapy for group Urban is not significantly different from the distribution of likelihood to use online therapy for group Rural. Table 8 presents the results of the Mann-Whitney U Test.

Table 8

Mann-Whitney U Test for Likelihood to Use Online Therapy by Region

	Urban	Rural			
Variable	*Mean Rank*	*Mean Rank*	U	*z*	*p*
Online Therapy	130.05	137.49	6314	-0.70	.484

Hypothesis 3. The effect of race on the likelihood of using online versus in-person therapy was examined using a one-way ANOVA. The assumption of homogeneity of variance was assessed using Levene's Test of Equality of Error Variances. The results of the Levene's test were not significant (p = .774), indicating that the assumption was met. The results of the ANOVA were not significant, F (4, 263) = 0.59, p = .669, η^2_p = 0.01. This indicates that race did not have a statistically significant effect on the use of online versus in-person therapy. Results of the ANOVA are presented in Table 9, and means and standard deviations of the groups are presented in Table 10.

Table 9

ANOVA for Likelihood to Use Online Therapy by Race

Online Therapy Use	*df*	*SS*	*MS*	*F*	*p*	η^2_p
Between Groups	4	1.65	0.41	0.59	.669	0.01
Within Groups	258	179.48	0.70			

Note. N = 263.

Table 10

Means and Standard Deviations for Racial Categories by Likelihood to Use Online Therapy

	M	*SD*
White/Caucasian	3.11	0.06
Black/African American	2.97	0.21
Asian	3.14	0.23
Hispanic	3.29	0.28
Other	2.83	0.22

As an additional test a Kruskal-Wallis rank sum test was conducted to assess if there were significant differences in the use of online therapy between the levels of race. The Kruskal-Wallis Test is a non-parametric alternative to the One-Way ANOVA and does not share the ANOVA's distributional assumptions. The results of the Kruskal-Wallis test were not significant, χ^2 (4) = 3.28, p = .512, indicating that the mean rank of the use of online therapy was not statistically significant different between levels of race.

Table 11

Kruskal-Wallis Rank Sum Test for Online Therapy Use by Race

Variable	White or Caucasian	Black or African American	Other	Asian	Hispanic	χ^2	df	p
Race	135.38	118.78	102.50	125.46	135.22	3.28	4	.512

Note. N = 263.

To further explore this hypothesis, Race was then combined into a dichotomous variable made up of White/Caucasian and Other. An independent samples *t*-test was

conducted to examine whether the mean of likelihood to use online therapy was significantly different between the White/Caucasian and Other categories of Race. Prior to the analysis, the assumptions of normality and homogeneity of variance were assessed. A Kolmogorov Smirnoff (KS) test was conducted to determine whether likelihood to use online therapy could have been produced by a normal distribution. The result of the KS test was significant, $p < .001$. This suggests that likelihood to use online therapy is unlikely to have been produced by a normal distribution, thus normality cannot be assumed. However, Stevens (2009) states that this assumption may be violated with relatively little harm in the *t* family of tests. Levene's test for equality of variance was used to assess whether the homogeneity of variance assumption was met. The result of Levene's test was not significant ($p = .158$), indicating that the assumption of homogeneity of variance was met.

The result of the independent samples *t*-test was not significant, $t\ (261) = 0.63$, $p = .526$, suggesting that the mean of likelihood to use online therapy was not significantly different between the White/Caucasian and Other categories of Race. Table 12 presents the results of the independent samples *t* -test.

Table 12

Independent Samples t-Test for the Difference Between Likelihood to Use Online Therapy and Race

Variable	White/Caucasian		Other			
	M	SD	M	SD	*t*(261)	*p*
Online Therapy Use	3.11	0.79	3.03	1.00	0.63	.526

Hypothesis 4. Finally, the effect of E/I on the likelihood of using online versus in-person therapy was assessed using an independent *t*-test. The assumption of homogeneity of variance was assessed using Levene's Test of Equality of Error Variances. The results of Levene's test were not significant ($p = .252$), indicating that variances are homogenous and that the assumption was met. The results of the *t*-test between E/I and the use of online therapy versus in-person therapy were also not significant, $t\ (261) = -0.44$, $p = .658$. This suggests that whether or not a participant was extraverted or introverted had no statistically significant effect on their likelihood of using online versus in-person therapy. Results of the *t*-test are presented in Table 13.

Table 13

Group Differences for Likelihood to use Online Therapy by E/I

	Introvert		Extravert			
	M	*SD*	*M*	*SD*	*t*(261)	*p*
Likelihood to use Online Therapy	3.07	0.76	3.11	0.89	-0.44	.658

Note. *N* = 263.

Chapter 4 Summary

Chapter Four began with a restatement of the purpose of the research, intended to frame the following findings. The chapter follows with a description of the data treatment methods, and a description of the final sample that was subjected to statistical analysis. Results of this analysis were presented, indicating that age was negatively correlated with use of online therapy, and that the variables of region, race, and E/I had no statistically significant effect on the use of online versus in-person therapy. In Chapter 5, these results will be assessed in terms of the extant literature, and implications to the body of knowledge will be discussed. In addition, any strengths and limitations of the study will be discussed, with recommendation to future research in an effort to expand on the strengths and remedy any possible limitations.

Chapter 5: Discussion

Introduction

The purpose of this quantitative correlational study was to understand the extent to which demographic variables and the personality traits of E/I influenced a client's preference for a specific method of administered psychotherapy. Traditionally, mental health care professionals have provided psychotherapeutic services via in-person interactions with clients. However, as the use of the Internet becomes more influential and more widely accepted, both psychologists and clients may be drawn to this medium, thereby expanding the range of delivery methods of psychotherapeutic services. I designed this study to examine the relationship between demographic and personality variables (independent variables) and the likelihood to use Internet interventions (dependent variable) to test whether age, region, race, or E/I personality were related to the likelihood of using Internet interventions. Results indicated that age was negatively correlated with use of online therapy and that the variables of region, race, and E/I had no statistically significant link to the likelihood of using online versus in-person therapy.

Interpretation of the Findings

The study was designed to investigate the following research question: Among current or prospective clients, do age, region, race, and E/I contribute to reported likelihood of choosing online therapy or in-person therapy? Although age and gender were variables researchers accounted for as demographic variables in many of the patient

populations in previous studies, researchers have focused little on age, race, region, and E/I as predictor variables.

Hypothesis 1

For the relationship between age and use of online therapy, the overall model was significant, indicating that there were significant differences in the likelihood to use online therapy by age group. Therefore, the null hypothesis was rejected. Age significantly negatively predicted participants' likelihood to choose online therapy. That is, as age increased, the likelihood of choosing online therapy decreased.

In their study of online versus clinic-based CBT for adolescent anxiety, Spence et al. (2011) found that online and face-to-face delivery of CBT were nearly equally efficacious in treating anxiety disorders in adolescents. In addition, participants in Spence et al.'s study reported nearly equal levels of satisfaction with online and face-to-face treatments. The findings of the present study, however, suggested that age plays an important role in whether individuals prefer online or face-to-face treatment, which may be connected to individuals' generational exposure to technology. It may be that individuals born before the digital age who are not comfortable with technology (e.g., digital immigrants) may be less computer savvy and less likely than individuals of younger generations who are comfortable with technology (e.g., digital natives) to seek out online treatment (Silverman, 2013).

Silverman (2013) argued that Internet therapy for both recipient and providers will be divided along new lines of diversity, which will increasingly involve levels of

technological sophistication instead of traditional markers of diversity, such as race and gender. In addition, new methods for the delivery of digital therapy include tools and forums such as social networking, blogging, texting, Skype, and even gaming (Silverman, 2013). Such tools and forums may further increase generational divides as older generations feel less and less comfortable with emerging technology. However, as individuals from generations born into the digital age continue to grow older, they may not have the aversion to seeking online therapy as individuals from previous generations.

In another study of digital age technology and well-being, Dolev-Cohen and Barak (2013) found that instant messaging (IM) conversations contributed to the well-being of distressed adolescents. Although the relief felt from IM is not formal online professional treatment, the study had important implications for the study of psychological well-being and technology. Dolev-Cohen and Barak's study showed that individuals from younger generations are adept at using digital technology, even to the extent that they can develop their own social systems to assist with their particular needs. This warrants more research into the role of bottom-up, non-professional use of technology in the mental well-being of individuals in a world wherein technology is becoming increasingly decentralized and socially connective.

The theory of CMC (Walther, 2002) served as the theoretical foundation for the present study. The theory of CMC holds that communication delivered in real-time can give individuals the feeling of closeness, leading to the disclosure of intimate details (Dolev-Cohen & Barak, 2013). The findings of the present study partially support the

theory of CMC in relation to age. If older individuals feel uncomfortable using and communicating via online technology, they might also feel uncomfortable or suspicious of using online technology to divulge personal information during online therapy sessions.

Hypothesis 2

For the likelihood of choosing online versus in-person therapy by region, the relationship between region and use of online therapy was not significant, suggesting that whether or not a participant lived in an urban or rural region did not significantly predict their likelihood to use online versus in-person therapy. Therefore, I failed to reject the null hypothesis.

Individuals living in rural areas may be required to travel considerable distances to treatment facilities and, therefore, not have as easy and ready access to face-to-face treatment as individuals living in suburban or urban environments (Cavaliere, 2014; Jones et al., 2014). Because of the need for mental health treatment in rural areas of the country, online treatment can help to overcome the challenges of distance and accessibility faced by individuals living in rural regions. During the 1950's, tele-health was considered a viable option for therapeutic services, especially because of the reach and immediacy the telephone provided (Migone, 2013; Perle et al., 2011).

However, findings from the present study did not support that individuals from rural regions would more likely choose online therapy. This may speak to the convenience of Internet-based therapy generally, and suggests that individuals living in

close proximity to treatment facilities may still find it more convenient to utilize Internet-based therapy than seek out face-to-face therapy. Additionally, feelings of closeness leading to the disclosure of personal details associated with real-time online communication may be related to individual factors (e.g., age) but not environmental factors (e.g., the areas in which individuals live).

Hypothesis 3

For race predicting the likelihood of using online versus in-person therapy the result was not significant, suggesting that the mean of likelihood to use online therapy was not significantly different between the white/Caucasian and other categories of race. Therefore, I failed to reject the null hypothesis.

For the question of race, I used a population predominantly from the United States. However, because the use of online therapy has global implications and possibilities, more research may be needed on cross-cultural perceptions of therapy and therapists. For example, what kinds of assumptions and perceptions do individuals from outside of the United States hold about receiving online treatment from therapists located within the United States? What kind of cultural ideas and traditions might inform individuals' attitudes toward treatment cross-culturally in a global environment?

It might serve the field well to look at other populations outside of the United States in addition to understand their thoughts and feeling about Internet counseling. Additionally, levels of technological sophistication are coming to influence individuals' use of technology more so than traditional markers of diversity such as race (Silverman,

2013). Consequently, using the theory of CMC (Walther, 2002) may not help to explain the relationships between race the likelihood of using online versus in-person therapy. Theories that may be more appropriate for understanding the relationships between race and online therapy include theories on how to access technology is linked to race. In addition, cultural competency theories might allow researchers to understand how online treatment could be tailored to the specific needs of racially diverse populations.

Hypothesis 4

Finally, for E/I predicting the likelihood of using online versus in-person therapy, there was no significant relationship, suggesting that whether or not a participant was extraverted or introverted had no statistically significant effect on their likelihood of using online versus in-person therapy. Therefore, I failed to reject the null hypothesis.

Researchers have used personality traits to study patterns of human motivation and behavior in relation to a range of everyday activities (Tsao, 2013). Tsao (2013) argued that research was needed on the relationship between personality traits and Internet usage because Internet usage has become a part of most people’s everyday lives. Part of the purpose of the present study was to examine the link between the interpersonal traits of extraversion and introversion and individuals’ decision to seek online therapy. In their study of IM and well-being, Dolev-Cohen and Barak (2013) found that E/I moderated the relief adolescents felt from using IM. Introverted individuals benefitted more from IM than extroverted individuals (Dolev-Cohen & Barak, 2013). Dolev-Cohen and Barak’s finding supports the theory of CMC (Walther, 2002) that the instantaneous

nature of online communications, including IM, delivered in real-time, can give individuals the feeling of closeness, leading to disclosure of intimate details, as opposed to talking in-person. However, the finding of non-significance in the present study concerning E/I does not support this theory.

Researchers have examined whether personality traits predict treatment outcomes for online therapy (Spek, NyKlicek, Cuijpers, & Pop, 2008). Spek et al. found that lower neuroticism scores predicted better outcome for both online and in-person treatments, and higher altruism scores were linked to improved outcomes online treatment. However, researchers have not focused on whether personality traits predict individuals' decisions to seek online therapy. Extraversion and introversion are interpersonal dimensions that involve social engagement and interaction that might predict individuals' decisions to seek online therapy. Although extraverted individuals tend to be outgoing and there has been emerging research on online behavior and personality traits, researchers have not reached consensus on whether extraversion or introversion are connected to the likelihood of Internet use generally or the likelihood of seeking out online therapy specifically (Spek et al., 2008; Tsao, 2013). The present study adds to the inconclusiveness of previous findings, and suggests that more research is needed on the connections between the personality traits of E/I and the likelihood of seeking online therapy.

Limitations of the Study

There are limitations to the present study, so the findings should be interpreted with these limitations in mind. I assumed that the attitudes and perceptions of the participants guiding their choices between in-person or online therapy reflected similar attitudes and perceptions of most clients in the United States seeking mental health services. However, introverts in the study comprised a slightly smaller amount of the sample (45.2%) than extraverts did (54.8%). Although these numbers do not differ greatly from the national sample (e.g., about 50% for each group; U.S. Census Bureau, 2014), this difference might be explained by the different instruments used for the present study and the national sample. The national report was based on the Myers-Briggs Type Personality Scale and the present study on the Big Five Inventory. Future researchers might consider using the Myers-Briggs Type Personality Scale to more closely align with the national sample.

The study was also restricted to participants who were computer literate and could answer the online survey. It was assumed that participants had a foundational understanding of both types of therapeutic interactions. However, one limitation of this study was that this data collection method limited individuals' opportunities to participate in the study who were not comfortable with or proficient in using online technology. Online data collection may have drawn people who were more comfortable engaging in online activities than individuals who were not. So, collecting data through in-person

surveys may have yielded different results concerning participants' preferences for online therapeutics services.

Recommendations

Based on the study findings, the following represent avenues for further research:

1. Incorporate a larger culturally diverse sample of participants to yield a more accurate representation of the general population and increase the external validity of the findings.
2. Use stratified sampling to help ensure an equal number of participants per category.
3. Use the Myers-Briggs Type Personality Scale to more closely align with the national sample.
4. Design a study that has an equal amount of non-Internet-based responses to sample individuals who may not be proficient in online technology use.
5. Continue to examine age and age-related conditions (e.g., dementia, memory-loss, etc.) in relation to online therapeutic services.
6. Research ways to engage older patients in opportunities for participating in online therapeutic services.
7. Research the non-professional use of technology and social networks in the psychological well-being of individuals.
8. Employ qualitative or mixed methods explorations of attitudes towards online therapy.

9. Explore the possibilities of hybrid treatment modalities combining both in-person and online therapy, wherein one delivery method supplements the other.
10. Use theories and models of cultural competency that could help researchers understand how online treatment might be tailored to the specific needs of racially diverse populations.

Implications

Study findings have implications for both the practice of psychology and social change in relation to the mental health of individuals. It is clear that the field of psychotherapy has been changed by the advent of the Internet. As the Internet continues to evolve, so too, must the relationship between online services and the field of psychotherapy. This research will help scholars, practitioners, and perhaps most importantly, clients, to better understand the options and opportunities available in pursuing various forms of communication for therapeutic interventions, and the effectiveness and viability of each choice based on certain specific variables. Clearly, because of the global reach of the Internet, methodological implications include the use of large culturally diverse samples of participants to give accurate representation of the general population, and the use of instruments, such as the Myers-Briggs Type Personality Scale, to align with national samples. It is also important that practitioners and researchers in psychology continue to review and keep abreast of state laws and

ethical issues in preparation for therapeutic services increasingly shifting towards online delivery.

Based on the study findings, psychologists should be prepared for increasing generational divides in technological aptitude and proficiency between individuals born before and within the digital age. This divide challenges psychologists and mental health care professionals to find ways to provide online therapeutic services to middle-aged individuals and to devise ways to engage these individuals in Internet psychotherapeutic services. Generational divides, however, may decrease as individuals from generations born into the digital age continue to grow older. With technology, mental health professionals can serve individuals who are isolated (e.g., elderly individuals and those living in rural areas) or would not seek services otherwise. Expanding access and providing the benefits of treatment to such individuals is clearly a factor of positive social change.

With the increasing role of social media and networks in the lives of younger individuals, psychologists should be also prepared for the increasing non-professional use of technology, including cell phones and personal devices, in individuals assisting and supporting one another in psychological well-being. Such a development may have implications for psychologists in providing community and support group therapy, and for re-conceptualizing non-formal psychological support using technology. In addition, because of the global reach of online communication, psychologists should be prepared for challenges associated with providing services to individuals from other countries, and

not just from rural regions of the United States. These challenges might include language barriers and culturally specific understandings of mental health and treatment. Consequently, cultural competence, especially in regard to language use, may become increasingly important for mental health professionals in the United States delivering online mental health services on a global scale, necessitating the use of cultural competency theories and models.

Conclusion

The alarming statistics concerning mental illness and the continual increase has become a social and financial burden to everyone. Also aggravating the general behavioral health and welfare of people is a failure of public systems and personal education with regard to the stigma of receiving mental health services. Even though many educational programs foster a greater acceptance of therapeutic interventions, ethnic, social, and economic barriers to proper health care will continue to be an issue for many years.

Access to proper mental health care is a growing concern, especially in light of the increases of occurrence of behavior disorders. Treatment of mental illness has been shown to reduce the effects of drug and alcohol abuses and comorbid chronic diseases. Educating the general public about the services and efficacy of programs available builds upon the fiscal duty of society to support behavioral health and alleviate much of the global burden of disease.

The results of this study on the relationship between these variables and the likelihood that individuals will choose to pursue either online therapy or in-person, may help psychologists better understand what factors influence clients to make such choices. Results indicate that middle-aged adults prefer Internet therapy more than in-person therapy. Shedding light on the relationship between these variables and the likelihood to pursue either in-person therapy or online therapy adds to the existing literature base regarding how patients make decisions about their treatment options in general. This understanding will help foster the introduction of therapeutic interventions such as online therapy, may help to ease the social and financial burden of providing mental health delivery for a growing clientele.

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Appendix A: The Big Five Inventory: Extraversion Scale

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.

Disagree Strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
1	2	3	4	5

I see Myself as Someone Who…

______ 1. Is Talkative

______ 2. Is reserved

______ 3. Is full of energy

______ 4. Generates a lot of enthusiasm

______ 5. Tends to be quiet

______ 6. Has an assertive personality

______ 7. Is sometimes shy, inhibited

______ 8. Is outgoing, sociable

Scoring: BFI scale scoring ("R" denotes reverse-scored items):

Extroversion and Introversion: 1, 2R, 3, 4, 5R, 6, 7R, 8

Appendix B: E-Therapy Attitude Scale

Scale: 1 = Strongly Disagree; 2 = Disagree; 3 = Neither agree or disagree; 4 = Agree; 5 = Strongly Agree

Item	Strongly Disagree				Strongly Agree
1. E-therapy is as effective as in-person psychotherapy.	1	2	3	4	5
2. E-therapy is a good adjunct to in-person psychotherapy.	1	2	3	4	5
3. I would refer a client to a qualified e-therapist.	1	2	3	4	5
4. E-therapy is effective in maintaining security and confidentiality of communications and records.	1	2	3	4	5
5. Appropriate assessment can be done using E-therapy.	1	2	3	4	5
6. An online support group is as effective as an in-person support group.	1	2	3	4	5
7. I would refer a client to an online support group.	1	2	3	4	5
8. Counseling and therapy can be done effectively online.	1	2	3	4	5
9. Mental Health Centers and Family Service agencies should offer e-therapy options.	1	2	3	4	5
10. Insurance providers should pay for e-therapy sessions.	1	2	3	4	5
11. Some clients would do better with e-therapy than with in-person psychotherapy.	1	2	3	4	5
12. E-therapy is an effective follow-up tool after in-person services have been ended.	1	2	3	4	5
13. A good therapeutic relationship can be established through e-therapy.	1	2	3	4	5

14. E-therapists are well trained to provide online services.	1	2	3	4	5
15. There should be national licensure for e-therapists.	1	2	3	4	5

Add the score for each item (range: 15 – 75). My total is:

Interpretation:

15 – 30 Unsupportive of e-therapy. Believes it is ineffective and/or unethical.

31 – 59 Neither supportive or unsupportive of e-therapy. Mixed feelings or not sure about effectiveness and ethics of e-therapy.

60 – 75 Supportive of e-therapy. Believes it is effective and ethical.

Appendix C: Demographic Questions

1. What is your age? __________
2. What is your gender? (male or female)
3. Which racial group do you most likely identify with? (White/Caucasian, Black/African American, Asian, Hispanic, Other; See definitions below for assistance)

   Definitions to the racial categories will be White or Caucasians: An individual who is related to people of Europe, the Middle East (western and southern Asia) or North Africa. Black or African American: An individual having origins in any of the black racial groups of African. Asian: a person having origins in any of the Far East, Southeast Asia, or the Indian subcontinent. Hispanic: An individual having origins from any of the Spanish or Latino descent. Other: An individual from origins not pertaining to the definitions above or who identify with more than one race.
4. Do you currently live in a rural region (small population, farm setting, country side setting etc.) or unban region (built up areas, such as cities or towns etc.)?

Appendix D: Invitation to Take Part in Study

You are invited to take part in a research study about online versus in-person therapy in regards to the impact of client demographics and personality characteristics. Traditionally, psychotherapeutic services have been provided by means of in-person interactions between practitioner and client. However, as the use of the Internet becomes more influential, and more widely accepted, as a normative societal resource, both the psychologist and client may use this medium to expand access to psychotherapy. The purpose of this study is to understand the extent to which demographic information and the personality traits of introversion/ extroversion (E/I) influence a client's preference for a specific method of administered psychotherapy. If you are between 18 to 64 years of age, able to read, understand, and answer questions truthfully, and currently taking part in or interested in therapy, you are eligible to participate in this study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Joel Kofmehl, who is a doctoral student at Walden University.

Appendix E: Big-5 Permission

Where do I get the Big Five Inventory (BFI)?

The Big Five Inventory (BFI) is a self-report inventory designed to measure the Big Five dimensions. It is quite brief for a multidimensional personality inventory (44 items total), and consists of short phrases with relatively accessible vocabulary. A copy of the BFI, with scoring instructions, is reprinted in the chapter as an appendix (the last 2 pages). It is also available through Oliver John's lab website. No permission is needed to use the BFI for noncommercial research purposes (see below).

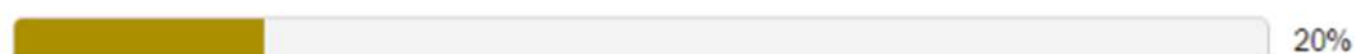
from http://pages.uoregon.edu/sanjay/bigfive.html#where

3

Appendix F: Instrument From SurveyMonkey

:PlmrGAHAkHGvfcnQk_2BL8QoljM2q5vuWlzfcbU_2FzvgSOlepYAOdaGxzGf

Online vs. In-person Therapy



20%

CONSENT FORM FOR PARTICIPATION IN STUDY
Title: Online versus In-Person Therapy: Impact of Client Demographics and Personality Characteristics

My name is Joel Kofmehl and you are invited to participate in a study titled "Online versus In-Person Therapy: Impact of Client Demographics and Personality."

Background Information:

Traditionally, psychotherapeutic services have been provided by means of in-person interactions between practitioner and client. However, as the use of the Internet becomes more influential, and more widely accepted, both the psychologist and client may use this medium to expand access to psychotherapy (Vilhauer, 2013; Mallen, Day, & Green, 2003). The purpose of this study is to understand the extent to which demographic information and the personality traits of introversion/extroversion (E/I) influence a client's preference for a specific method for psychotherapy. This purpose of this study is to understand if among current or prospective clients, does age, region, race, and introversion/extroversion (E/I) contribute to reported likelihood of choosing e-therapy or in-person therapy?

Procedures:

Once you have agreed to take the survey, you will be directed to the survey questions. The survey consists of two parts. The first part consists of 8 statements for you to fill in with a number that indicates the extent to which you would agree or disagree. The second part has 15 statements that require you to select a number with which you would agree or disagree.

Risks and Benefits of Being in this Study:

There are no foreseen mental or physical risks. The survey is not mandatory and participants have the option to not complete the survey and leave at any time if they choose. The survey is also completely anonymous, meaning no identifying information will be collected. There are no direct benefits for participating in this study.

Compensation:

Participants will not receive gifts, money reimbursements, or any kind of compensation for their participation in the study.

Confidentiality:

The data will be stored electronically on a PC owned by the researcher and will be contained in a password protected file, which only the researcher will have access. The data will be kept for a period of five years after the research is completed, after which the data will be destroyed.

PREVIEW & TEST

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The data will be stored electronically on a PC owned by the researcher and will be contained in a password protected file, which only the researcher will have access. The data will be kept for a period of five years after the research is completed, after which the data will be destroyed.

In order to maintain anonymity, the results of this study will be posted to an open Facebook page that will be made available once the data has been collected and the results have been completed.

Voluntary Nature of this Study:

Participants will be told that participation in the survey is completely optional and not mandatory. In addition, the participants will be able to leave the survey at any time.

Contacts and Questions:

The researcher conducting this study is Joel Kofmehl. If you have questions regarding this study at a later time, you may contact him at:

Joel Kofmehl
4415 N. Center Rd
Spokane, WA 99212
(509) 939-0166

Walden University's approval number for this study is 05-19-16-0057120 and it expires May 18, 2017. A copy of this form will be given to you for your records.

Statement of Consent:

I am 18 years old or older, able to read and answer the questions truthfully, and currently or interested in seeking therapy. I consent to participate in this study.

*** 1. CLICK 'I AGREE' TO CONTINUE TO THE SURVEY OR 'I DISAGREE' TO EXIT**

○ I AGREE

○ I DISAGREE

Next

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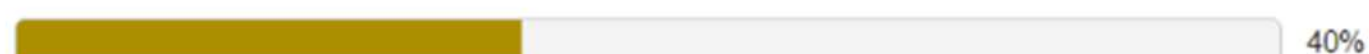
Online vs. In-person Therapy



* **2. What is your age?**

* **3. What is your gender?**

- Male
- Female

* **4. Which racial group do you most likely identify with?**

- White/Caucasian
- Black/African American
- Asian
- Hispanic
- Other

* **5. Do you currently live in a rural region (small population, farm setting, countryside setting etc) or urban region (built up areas, such as cities or towns etc.)?**

- Rural
- Urban

Prev Next

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Online vs. In-person Therapy

60%

*** 6. E-Therapy Attitude Scale**

	Strongly Disagree	2	3	4	Strongly Agree
1. E-therapy is as effective as in-person psychotherapy.	○	○	○	○	○
2. E-therapy is a good adjunct to in-person psychotherapy.	○	○	○	○	○
3. I would refer a client to a qualified e-therapist.	○	○	○	○	○
4. E-therapy is effective in maintaining security and confidentiality of communications and records.	○	○	○	○	○
5. Appropriate assessment can be done using E-therapy.	○	○	○	○	○
6. An online support group is as effective as an in-person support group.	○	○	○	○	○
7. I would refer a client to an online support group.	○	○	○	○	○
8. Counseling and therapy can be done effectively online.	○	○	○	○	○
9. Mental Health Centers and Family Service agencies should offer e-therapy options.	○	○	○	○	○
10. Insurance providers					

PREVIEW & TEST

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agencies should offer e-therapy options.

10. Insurance providers should pay for e-therapy sessions.

11. Some clients would do better with e-therapy than with in-person psychotherapy.

12. E-therapy is an effective follow-up tool after in-person services have been ended.

13. A good therapeutic relationship can be established through e-therapy.

14. E-therapists are well trained to provide online services.

15. There should be national licensure for e-therapists.

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ImrGAHAkHGvfcnQk_2BL8QoljM2q5vuWIzfcbU_2FzvgSOlepYAOdaGxzGf

Online vs. In-person Therapy

Extraversion Scale

80%

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please click the number for each statement to indicate the extent to which you agree or disagree with that statement.

*** 7. I see myself as someone who...**

	Disagree Strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
Is Talkative	○	○	○	○	○
Is Reserved	○	○	○	○	○
Is full of energy	○	○	○	○	○
Generates a lot of enthusiasm	○	○	○	○	○
Tends to be quiet	○	○	○	○	○
Has an assertive personality	○	○	○	○	○
Is sometimes shy, inhibited	○	○	○	○	○
Is outgoing, sociable	○	○	○	○	○

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mrGAHAkHGvfcnQk_2BL8QoIjM2q5vuWIzfcbU_2FzvgSOlepYAOdaGxzGf

Online vs. In-person Therapy

100%

Thank you for your participation!

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