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Perceived risks and benefits of emerging technologies in professional psychology

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Perceived Risks and Benefits of Emerging Technologies in Professional Psychology

by

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Presented to the Faculty of the
Graduate Department of Clinical Psychology at

George Fox University

in partial fulfillment

of the requirements for the degree of

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Newberg, Oregon

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Perceived Risks and Benefits of Emerging Technologies in Professional Psychology

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has been approved

at the

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Abstract

Technology has changed the way many operate within their profession. Psychologists have used technology for decades but often with caution. Due to the private nature of clinical practice, confidentiality and following ethical guidelines are imperative. As technology continues to rapidly alter the way people interact, the field of psychology is faced with many new ways to practice, teach, advertise, and supervise. This study explored the ways professionals view the use of technology in the psychological profession particularly in its relationship to risk and benefit to patient care. Professional and student members of the American Psychological Association were surveyed to explore their beliefs of risks and benefit to best patient care using advanced technologies. Data were collected using a semi-structured interview asking for input on a vignette of a fictitious psychologist who uses advanced technology such as internet therapy, video chat therapy via Skype, or other emerging technologies.

Participants were more likely to consider using Smartphone technology than Second Life technology. Across all technologies assessed within this study, qualitative data analysis revealed

increased access to psychological services and cost savings as the major benefits to using technology. The major concerns were ethical in nature, especially in regard to confidentiality and boundary concerns. Increased privacy, increased feelings of support, reduction of stigma, efficiency, and improved work quality were identified as possible benefits of technology while loss of intimacy and rapport, inadvertent promotion of pathology, safety concerns, loss of privacy, and technology failures were identified as risks. Implications for future research, clinical work, and professional regulation are offered.

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Chapter 1

Introduction

A day in the life of a typical psychologist is likely to be influenced by various technologies, whether in the office, classroom, or place of business. The devices, products, or technological advances are presumed to improve psychologists' ability to function efficiently, or possibly increase their enjoyment of life. These devices may include computer hardware and software, smart cell phones (SCP) that have recently replaced the previously popular personal digital assistant (PDA), or any number of technologies that have advanced life socially, professionally, and academically.

The rapid and accelerating pace of technological change creates certain risks for psychologists. Among these are the impossibility of ethics committees rewriting standards for the rapidly changing technologies that come available, and age differences related to training competence among established and early career psychologists. Technology is moving more quickly than the research that informs psychologists about how to best use technology. McMinn, Buchanan, Ellens, and Ryan (1999) researched psychologists' perspective on technology and concluded professional psychologists are experiencing some disorientation related to advances in technology. A decade later McMinn, Bearse, Heyne, Smithberger, and Erb (2011) found this disorientation persists. Questions remain with regard to which technological advances are ethical, usable, and practical. The risks facing psychologists can be roughly categorized as

ethical and competency risks, but technology brings potential benefits as well as risks, making it important to consider both risks and benefits associated with emerging technologies.

Ethical Risks

The American Psychological Association (APA) has set standards for all psychologists to abide by to protect clients' privacy, insure best practice standards and beneficence, and promote justice and accessibility of services. These standards are broken down into general principles and specific ethical principles that further detail the general principles. The APA ethical standards are "written broadly, in order to apply to psychologists in varied roles, although the application of an Ethical Standard may vary depending on the context." (APA, 2002, p. 1061). This is particularly relevant as there are only broad guidelines to follow outlining competency, use of, and protection of clients when using technology in the many roles a psychologist may perform within his or her career. Psychologists in many different roles encounter technology in a variety of ways. The ethical guidelines offer guidance, but individual psychologists have differing ways of interpreting these guidelines (Jefferies, Carsten-Stalh, &McRobb, 2007). This is especially pertinent given how broadly the APA ethical guidelines are written.

The advantage of broad ethical guidelines is that they persist through advancements within the discipline of psychology, and advancements in the world that the discipline of psychology serves. The disadvantage is that they don't have a specific connection to particular advances that may have occurred since the time of the last ethics revision. Currently, the most recent APA ethical guidelines were amended in 2010 (APA, 2010). Prior to that, the latest revisions were 2002 and 1992.

The prevailing Zeitgeist of professional psychology is to exercise caution towards new technologies, but to remain open regarding their potential usefulness (APA Policy and Planning Board, 2009). Various ethical challenges may emerge in this environment where technology moves faster than ethics boards. Among these challenges are multiple role relationships, boundaries in self-disclosure, and confidentiality of record keeping, though many more could also be described.

Multiple Role Relationships

Multiple role relationships in professional psychology are sometimes unavoidable, as may be the case in rural communities. Psychologists typically manage this by exercising caution, providing detailed informed consent, and setting clear boundaries regarding professional relationships. Being clear about the potential of multiple role relationships is important within the clinical office, particularly when practicing in a small community where such relationships are likely. Open dialogue about how to maneuver and manage these relationships provides protection for both the client and clinician (Campbell & Gordon, 2003). Today, technology has made managing multiple role relationships increasingly complex. Access to psychologists has increased with the advent of the Internet, particularly email. In the past, the telephone was the primary way to communicate with a psychologist, but now clients may contact psychologists in additional ways because of the ease of access the Internet and email provide (Gutheil & Simon, 2005). With the availability of personal information over the Internet rising because of social networking websites (SNWs) it is likely that a client may ask to “be friends” with his or her therapist on one of these sites. Suppose a socially anxious client asked to be a psychologist’s “friend” on Facebook. It is rejecting to say no, but it is also hazardous to accept the request

because of the increased possibility of multiple role relationships. Moreover, it would also be possible that information not relevant to the client will be available, thereby increasing the possibility of disclosing more than is therapeutically relevant for the client (Taylor, McMinn, Bufford, & Chang, 2010). Both email and SNWs fall under the concept Gutheil & Simon (2005) call “the slippery slope,” where small compromises to client/therapist boundaries may lead to greater potential for deviations in the future. Whether these deviations are helpful or harmful, Gottlieb and Youngger (2009) confirmed the slope exists, but its steepness varies. It is unknown at this time the extent to which SNW’s impact the therapeutic relationship.

Self-disclosure

Historically, psychologists have been cautious about how much they disclose regarding their personal lives (Taylor et al., 2010). Access to a psychologist, or information about the psychologist, is now much more readily available than once was the case (Mallen, Vogel, Rochlen, 2005). Information can be accessed through social and professional networking, and as a result, increases the potential for hazardous self-disclosure. However, as Taylor et al. posit, advances in technology have made this disclosure less controlled, and less intentional. Personal information, or information psychologists once shared only with family and close friends is now available through SNWs, and is potentially accessible by clients. Moreover, a client can search on Google or other Internet search engines and find information that may have formerly been private. SNW’s create what Campbell and Gordon (2003) call small world hazards and what Zur, Williams, Lehavot, and Knapp (2009) call everyday life hazards. This “small world” effect has the potential to skew the therapeutic relationship between psychologist and client because of self-disclosures that are uncontrolled.

Self-disclosure has a unique outcome that may be helpful in the therapeutic process. With deliberate disclosure, however, the therapist has a motive. Disclosing a common affective expression that is congruent with the client may suggest the motive of modeling of emotional expression, or possibly normalization (Shwartz, 1993). Conversely, the choice not to disclose may suggest a different motive and outcome. Refraining from self-disclosure may be for protection of self or client. Choosing to keep personal information private may be motivated by concerns about transference, counter transference, or role differentiation. The choice to not disclose may also be for security and safety. All things considered, self-disclosure needs to be related and focused toward the client's needs and the therapeutic milieu (Bridges, 2001; Goldstein, 1994; Myers & Hayes, 2006; Peterson, 2002; Shwartz, 1993).

If intentionality in self-disclosure is lost through advancement of technology as Taylor et al. (2010) suggests, the dilemma faced by psychologists is similar to those faced in the past with inadvertent disclosures such as the décor or books psychologists have in their offices, or potential encounters in public (Wilkinson & Gabbard, 1993). However, what is unique about these advances in technology is both the way in which the client may come across a psychologist's information and the magnitude of information potentially available to the client.

Confidentiality of Record Keeping

Electronic record keeping and billing has become a standard and is well established in many parts of the world, though health care professionals in the US tend to lag behind many other countries (Richards, 2009). Among US psychologists, electronic records have increased in recent years, with approximately half storing psychotherapy records on computers in 2009 (McMinn et al., 2011). Computers have for many psychologists become a common tool in their

offices, providing support in completing tasks indirectly related to the therapeutic process in less time. However, the ability to increase time efficiency can come at the potential cost of privacy (Luepker, 2003; McMinn, 1998).

In interdisciplinary clinics where medical doctors, psychologists, and other care professionals work together, accessibility of client information may be available to more than just the psychologist, thereby reducing the privacy and privileged nature of the therapeutic process (Richards, 2009). A psychologist working in an interdisciplinary clinic such as primary care or health psychology may wonder how much information is too much information to put in a client's chart if it is accessible to other specialists. APA has addressed this question by lobbying for stringent privacy standards and increased client control of who is able to see their personal mental health records (APA, 2007).

HIPAA (Health Insurance Portability and Accountability Act) has increased awareness in the medical and psychological field regarding confidentiality. The HIPAA Privacy Rule recognizes that psychotherapy notes need additional protection beyond what is given to other protected health information, but this additional privacy is not always considered when psychologists store records electronically (HIPAA, 1996; Richards, 2009). As systems grow and more technology is applied, more disciplines intersect and begin working together, therein increasing the "small world" effect suggested by Campbell & Gordon, (2003) and Zur et al. (2009).

Competency Risks

Psychologists learn the tools of their profession during their doctoral training, and are then faced with the challenge of keeping up with changes after completing their training. With

accelerating changes in technology, the challenge of keeping up also escalates. Some changes are relatively straightforward and can even be handled by office staff. For example, competency in areas such as electronic billing and record keeping has for many become a standard of practice. These technologies have been used for years, and a level of security and trust has been established. However, some practitioners still question the security of information, and question their ability to effectively use technology even for routine aspects of practice. This may create a skewed level of competence between younger practitioners and older more established practitioners in the psychological field (McMinn, 1998; McMinn et al., 1999; Mallen et al., 2005).

Other technological changes are less straightforward, requiring ongoing commitment to state-of-the-art doctoral training and excellent continuing education offerings. As advances in communication become available, new avenues of therapeutic interaction also have the potential to increase. For example, it is now possible to offer therapy or supervision services from a distance through low-cost videoconferencing such as Skype. Many psychologists promote their practices on the Internet and computerized databases may soon be used for ongoing therapy outcome research (Knapp & VandeCreek, 2006; Mallan et al., 2005). At times it seems that the field of psychology is faced with the dilemma described by folk musician Bob Dylan in his 1963 song, *The Times They are A-Changin'*: “better start swimming or you’ll sink like a stone.”

In discussing the implications of technology in therapeutic practice, competence in educating future psychologists, skilled continuing education for practicing psychologists, and proficient research are all important. Inertia stands in the way of many psychologists. Some may believe that if they are effective in their practice, they need not make an effort to become fluent

with a new technology. This idea, taken to its extreme, causes potential concern of therapist relevance, and moreover, the field's competency in training and supporting technological advances such as online therapy, teletherapy, and more advanced video therapy (Knapp, & VandeCreek, 2006; May, Gask, Takinson, Ellis, Mair, & Esmail, 2001; McMinn, Orton, & Woods, 2008; Moore, & Wilcox, 2006).

This has implications for supervisors, who are sometimes faced with the challenge of communicating their expertise while supervising trainees who know more about technological options for service delivery than the supervisor. Conversely, the supervisee faces the challenge of remaining teachable in learning the traditional aspects of effective assessment and psychotherapy from those who may seem behind the times.

Supervision is directly related to competency, particularly in early years of practice. Technologies that may be considered avant-garde may also be difficult to supervise. The seasoned practitioner needs to be open to new techniques and be willing to supervise such therapeutic techniques if so desired (Mallen et al., 2005). However, this should not impede caution and ethical compliance as new ways of practice are explored. As the APA ethical standards regarding competency suggest:

Psychologists planning to provide services, teach, or conduct research involving populations, areas, techniques, or technologies new to them undertake relevant education, training, supervised experience, consultation, or study...

In those emerging areas in which generally recognized standards for preparatory training do not yet exist, psychologists nevertheless take reasonable steps to ensure the competence of their work and to protect clients/patients,

students, supervisees, research participants, organizational clients, and others from harm (APA, 2002, p. 1064).

With the issue of competence hanging in the balance, there are some psychologists who push the envelope to bring therapy, psychoeducation, assessment, and consultation to populations of interest in ways that greatly differ from the classic, in session, face-to-face therapy (Jefferies et al., 2007; Miller, Elbert, Sutton, & Heller, 2007; Rosen & Weil, 1996; Stergus, 1998). There are also those psychologists who fervently avoid the use of technology within their practice (May et al., 2001; Mallen, 2005; Richards, 2009). This contrast may indicate the ambivalence and uncertainty that many psychologists experience regarding technology and professional practice.

Potential Benefits

The discussion thus far, and much of the literature on the topic, focuses on the risk of technology being misused in professional practice. In addition to considering the risks, it is also important to consider potential benefits that technology brings to psychological practice.

Virtual reality (VR) has become helpful in treating and reducing anxiety and phobias, Post Traumatic Stress Disorder in veterans, and even eating disorders (Riva, 2005). For example, VR provides the therapist more control in exposure and speed of treatment. The client may move faster through therapy or need more time on a particular stage of the VR exposure. There is also an increase in safety as well as standardization of treatment (Schultheis, & Rizzo, 2001; Taylor, & Luce 2003). Other researchers have experimented with web based virtual groups using video conferencing. Results suggest participants in an experimental support group for caregivers of neurologically impaired family members bonded with group facilitators and group members

despite the perceived limitations of video-conferencing. (Marziali, Daminakis, & Donahue , 2006).

Evidence exists that technology has a positive impact on patient care. Taylor and Luce (2003) state, "computer-assisted therapy appears to be as effective as face-to-face therapy for treating anxiety disorders and depression. (p. 21). Even more unique is the growing number of clients who are what Prensky (2001) calls "digital native," those who have grown up with technology as more of a standard and less of an advancement. The digital native faces unique care opportunities. For example, clients who are addicted to computer gaming, or even social networking like Facebook and MySpace, may need treatment in the medium through which their addictive behavior is experienced. Putnam and Maheu (2000) suggest this same for addiction to sexually explicit material on the World Wide Web, noting that interventions should be explored through technology as a way of combating the ease of access and immediacy of triggering material.

Balancing Risks and Benefits

The use of technology by professional psychologist may fit, like so many things, the bell curve. There are those that fully embrace technology and those that are cautious, with a majority falling within a mid-range of the two extremes. The psychologists who fully embrace technology push forward into uncharted territory in an effort to explore benefits while hopefully avoiding risk. Balancing out those that press forward are those psychologists who watch closely and resist the use of technologies.

For example, what if, due to the increase of digital media, electronic communication, and socializing done from a distance, the need for face-to-face contact is more important than it has

been in the past? There may be wisdom in a slow, cautious embracing of technology. This appears to be the prominent posture of psychologists, who tend to not be at the forefront of technology (May et al., 2001; McMinn et al., 1999). In other words, gradual incorporation of technology can preserve the elements of the therapeutic process that cannot be replaced by technology. These elements are unique to the relationship of therapist and patient. The old adage, “if it ain’t broken, don’t fix it” comes to mind here.

The psychologists who press forward have wisdom as well. Being ethically aware and cautious of our patients’ and our own private information is well informed, but if this comes from the fear of using technology we may fall behind our clients’ needs or interests. It seems likely that psychologists need to be nimble and adapt to the changing nature of new delivery systems. Just as psychotherapists have moved away from having the Freudian couch in their offices, so new technology brings fresh challenges of adaptation to contemporary culture. Primary care psychology, health psychology, and industrial organizational psychology are a few niches within the field of psychology that appear to be particularly advanced in technology use (Jefferies et al., 2007; May et al., 2001).

Today’s health care system faces the tension of those who are cautious and slow and those who are nimble and quick. For example, American Well is a medical company that is offering online video therapy to American Military and their families (Miller, July 2009). This advancement in technology brings psychological services to the doorstep of many, but at what cost? Shortly after the article discussing American Well’s use of video therapy, the *New York Times* reported again on the advancement of technology in the medical field. Some doctors expressed caution, stressing the importance of face-to-face, in person communication with

patients for diagnostic considerations (Miller, December 2009). Again, the crux of the technology debate is ethics (Jefferies et al., 2007; McMinn, 1999; Mallen et al., 2005; Negretti, & Wieling, 2001; Richards, 2009; Shwartz, 1993; Taylor et al., 2010).

Indeed it could be argued that there are two potential errors with technology use in psychology. One is embracing it uncritically (analogous to a Type I error in inferential statistics); the other is failing to accept the potential benefit of technology and practice (analogous to a Type II error in inferential statistics). This dichotomy in the technology debate seems driven by the concern for upholding strict ethical standards. Those who choose to use technological advances straddle the same line of those who choose to not use technology.

This study explores the emerging ways that psychologists are using technology to impact direct patient care, and how ethical guidelines are followed in using these technologies. As an exploratory, qualitative study using grounded theory methodology, this study is refraining from offering specific hypotheses. This study will approach psychologists as neutrally as possible, and then draw conclusions from the data they provide.

Chapter 2

Method

Participants

Participants were both psychologists who were members of APA and students in APA accredited doctoral programs. They were invited to participate in this study via email or by US postal service. Bachelors and Masters level mental health professionals were excluded unless enrolled in an APA accredited doctoral program. Those studying at institutions not accredited by the APA were also excluded. The sample population was obtained through the APA Directory.

Of the 300 surveys sent to psychologists, 37 were undeliverable, reducing the potential response rate to 263. Of the 263 remaining surveys, 102 professionals participated, yielding a response rate of 38%. Similarly, 300 students were solicited to participate; however they were invited via email. Of the 300 sent, 29 were undeliverable reducing the potential student response rate to 271. Of the 271 remaining electronic surveys sent, only 29 students participated, yielding an 11% response rate.

The final sample of 131 participants consisted of 77% professional psychologists and 22% students. Female participants accounted for 65% of the total sample. The average age of participant was 50.4 years ($SD = 15.7$). The majority of the sample was European American (79.4%) with 1.5% African American, 5.3% Asian American, 3.8% Latin American, 0.8% Native American, 1.5% International, 6.1% identifying as Other, and 1.6% not reporting ethnicity. Of the total sample, 80.2% reported holding a PhD or PsyD in psychology. Of the

remaining participants, 12.2% reported holding a Masters Degree and 7.6% reported holding a Bachelors Degree. Of the 102 professional participants that were licensed, the median year of licensure was 1989, with a range of 1969 to 2011. Student participants were asked to identify what year they were in their program. Of the 29 students, 23 reported their year in training. 8.7% reported being in the first year of graduate education and 39.1% in the second, 17.4% the third, 17.4% the fourth, and 17.4% in the fifth year of training. The remaining did not report what year they were in their training. Participants also reported their theoretical orientation. An Integrated orientation accounted for 30.5% of the sample, 27.5% identified as cognitive-behavioral (CBT), 17.6% as psychodynamic, 8.4% as Existential/Humanistic, 13% as other, and 3.1% did not report.

Instruments

The instrument for this study included one of four scenarios featuring a fictitious psychologist who uses technology in his or her practice. The scenarios included cutting edge technologically advanced procedures used to conducted therapy, educate clients, or provide services to patients. Scenarios were created by performing an Internet search of current technological trends and reviewing literature regarding technology and therapeutic practice. Sites such as HelpHorizon.com and egetgoing.com aided in the formulation of these scenarios. See Appendix A for the four scenarios.

A brief open-ended questionnaire was created to measure participants' beliefs on each vignette. This brief questionnaire asks participants to describe their beliefs on ethical practice and effectiveness, and perceived risk and benefit to client. These topics were distilled from existing literature on technology use. Two Likert-type questions were used to gather data on the

likelihood a participant would utilize the technology used in the scenario and the perceived degree of ethical risk. Participants were asked to give demographic information such as age, years licensed, and types of technology they use to provide psychological services. See appendix A for the embedded questionnaire with each scenario. The four variations of questionnaires can be found in Appendix A.

Procedures

Participants were contacted via email or through paper mailing using the US postal service. Student volunteers from APA accredited doctoral programs choosing to participate in this study were directed to an electronic interview requesting their opinion on one of the four fictitious psychologists who uses technology as part of treatment. Psychologist choosing to participate received a paper mailing sent out via the US Postal Service. Both students and professional psychologists participating in the study were randomly assigned to receive one of the four scenarios.

Chapter 3

Results

Both quantitative and qualitative results were derived from questionnaire responses. Each is described, in turn.

Quantitative Findings

Despite participants reported utilization of common technologies, quantitative results indicate participants espouse high ethical concerns and low likelihood of using the technology explored within this study. The participant's age did not increase the likelihood they would consider using the technology investigated, nor did theoretical orientation. Among the vignettes, participants were more likely to consider using smartphone technology over second life technology, but no other differences were found.

With each scenario respondents were asked to indicate whether they would consider using a similar technology in clinical practice, and the extent of their ethical concerns. Response patterns on these two items are reported for each of the four scenarios in Table 1.

Respondents were also asked to indicate how they currently use technology for their professional work. Responses are summarized in Table 2.

In light of the rapid changes in technology, a relationship between age and the questionnaire items seemed feasible. The correlation coefficients between age, willingness to consider each technology, ethical concerns, and technology use are reported in Table 3.

Table 1

Mean (and Standard Deviations) for Vignettes

Vignette Type	I would Consider		Ethical Concerns	
	Mean	SD	Mean	SD
Smartphone	2.68	1.70	5.29	1.51
Internet	2.52	1.60	5.85	1.05
Facebook	1.94	1.09	5.66	1.47
Second Life	1.65	1.02	5.71	1.60

Notes. This table reports items on a 7-point scale, ranging from 1 (*not at all*) to 7 (*yes*).

Table 2

Technology Used

Technology Used	Overall %	% of Professionals	% of Students
Email	91.6	89.2	100
Instant Messaging	16.8	16.7	17.2
Computer	87.8	85.2	96.5
Electronic Record Keeping	49.6	45.0	65.5
Cellphone	75.6	82.3	51.7
Smartphone	29.0	27.4	34.4
Video conferencing	18.3	17.6	21.0
Video Chat	17.6	19.6	10.3
Computerized Assessment Scoring	47.3	41.1	68.9
Computerized Assessment Administration	26.0	20.5	44.8
Online Therapeutic Intervention	3.1	1.9	6.8
Suggest Websites	45.8	45.0	48.2
Social Networking	7.6	2.9	24.1
Professional Networking	22.9	24.5	17.2
Personal Website	23.7	26.4	13.7
Advertise on a professional Affiliations website such as APA	25.2	29.4	10.3

Notes: Participants were asked to check *yes* or *no* if using technology.

Table 3

Correlations for Age, Willingness to Consider, and Ethical Concerns

	Willingness To Consider	Ethical Concern	Age
Internet			
Willingness to consider	--	-.482**	-.276
Ethical Concern	-.482**	--	.110
Age	-.276	.110	--
Smartphone			
Willingness to consider	--	-.238	.226
Ethical Concern	-.238	--	-.247
Age	.226	-.247	--
Second Life			
Willingness to consider	--	-.305	.075
Ethical Concern	-.305	--	-.199
Age	.075	-.199	--
Facebook			
Willingness to consider	--	-.628**	-.134
Ethical Concern	-.628**	--	.161
Age	-.134	.161	--
Overall			
Willingness to consider	--	-.376**	-.012
Ethical Concern	-.376**	--	-.058
Age	-.012	-.058	--

Notes: ** Correlation is significant at the 0.01 level.

To explore possible differences based on theoretical orientation, two one-way analyses of variance (ANOVA) were computed with willingness to use the technology and ethical concerns as the dependent variables. No significant differences were found.

Similarly, two ANOVAs were computed to look for differences among the four scenarios in willingness to use the technology and ethical concerns. A significant difference was found on

the willingness to consider variable, $F(3,127) = 3.90, p = .010$. A post hoc Scheffé revealed those responding to the Smartphone vignette ($m = 2.68, sd = 1.71$) were more willing to consider using the described technology than those responding to the Second Life vignette ($m = 1.65, sd = 1.08$). No significant differences were detected for the ethical concerns variable.

Differences were also explored between students and professionals on the willingness to consider and ethical concern items, using independent samples t tests. No significant differences were found.

Qualitative Findings

In order to analyze the qualitative findings of this study a codebook was created using grounded theory categorizing and sorting strategies to distill themes throughout the vignettes. See Appendix B for this codebook. A coding system was developed to explore responses to the open-ended questions on the questionnaire. Interrater reliability was evaluated using kappa coefficients to assess coding consistency. Interrater reliability coefficients ranged from .48 to 1.0, with an average of .89. When interrater reliability was .50 or below, reconciliation was performed through regrouping of coding categories. A second round of interrater reliability was performed to attempt higher coefficients.

For this study, if a concept emerged at least three times it was considered a theme. The benefit and risk qualitative questions were analyzed using the same rules and each will be discussed within their respective vignettes. These themes are summarized in Table 4.

Internet benefits. Thirty-three complete Internet questionnaires yielded six benefit themes. The six categories gleaned from the Internet vignette were: (a) cost savings; (b)

convenience; (c) increase in privacy; (d) increased feeling of support; (e) the reduction of stigma; and (f) increase access to care.

Table 4

Risk and Benefit Themes of Vignettes

	Benefits	Risks
Internet	cost savings* convenience increased privacy increased feeling of support reduction of stigma access*	missing important information alliance privacy therapist influence safety boundaries* legal concerns confidentiality*
Facebook	value to consumer* access*	testimonials boundaries* patient perceptions therapeutic process confidentiality*
Smartphone	efficiency improved work quality access*	reduced Level of Intimacy technology failure loss of privacy dual relationship/boundaries* confidentiality*
Second Life	comfort venue to rework trauma access*	contact loss of Important Info promotes Pathology identity concerns rapport/Alliance confidentiality*

Note: * identifies themes or categories which are seen across two or more vignettes.

The first theme participants described was the concept of cost savings. Responses fit into three categories within cost savings: (a) increased income for the therapist, (b) cost savings to clients, and (c) cost savings to therapist. The first category, *increased income for the therapist*, was suggested by some to provide increased income as a result of increased access. Regarding this increased income one participant suggested, “Dr. Lee can make more money by treating a higher volume of patients.” The second category, *cost savings to clients*, was also tied closely to increased access. One participant stated, “[There is an]ability to reach populations who may be unwilling or unable to travel for therapy, or who may be unable to pay.” Another response suggested a benefit would be for those who are “unable to afford the extras of paying for parking.” The final category under the theme of cost savings is *cost savings to the therapist*. One suggested, “not paying for office space because Dr. Lee can work from home” as a benefit while another response simply suggested the idea was, “Cost effective.”

The second benefit theme that emerged within the Internet vignette was convenience. No subcategories were coded for this theme. Those who commented on convenience provided similar suggestions as this participant who stated, “Convenience of time and place with some level of privacy.” As mentioned in the last example, *Privacy*, is also the third theme. Those that suggested privacy as a benefit gave examples such as, “Meeting any client's desire for greater privacy not being seen going into a therapy office.” The fourth theme, *increased support*, was suggested by some participants as a benefit and was directly related to the group chat component described in the vignette. One participant suggested having, “access to a diverse population with differing needs might support clients in obtaining a view of substance-abuse related issues and therefore a greater perspective.” The fifth theme suggested by some participants was *reduced*

stigma. Those who endorsed this benefit reported benefits similar to this participant who stated, “Treatment availability to those whose sense of stigma prevents accessing services in person.”

The sixth and final theme, *increased access to care*, includes the following subcategories: (a) general increased access; (b) global access; (c) access to specific populations; and (d) access to rural populations. Those who endorsed a general increase in access reported simply “easy access,” or “accessibility” and “more accessible for more people” as benefits. Participants who elaborated with more specifics such as global access suggested the benefit of “accessing a wide geographic spectrum.” Those suggesting increased access to a specific population provided similar responses as this participant who stated, “Younger people might be more easily reached and engaged by using this technology.” Another wrote, “a treatment in tune with the young adults lifestyle.” Finally, access to rural populations was suggested as a benefit by some participants such as this one who stated, “Accessibly is a strong benefit, especially for those in rural areas, where access to services may not exist without lengthy travel.”

Internet risks. Of the 33 completed Internet questionnaires, seven themes of risk emerged. These themes were: (a) missing important information; (b) alliance; (c) privacy; (d) confidentiality; (e) therapist influence; (f) safety; (g) boundaries; and (h) legal concerns. The first theme, *missing important information*, was suggested by one participant as a risk of, “Missing information (body language cues, etc.) that would clue Dr. Lee in about potentially dangerous situations.” Another participant wrote about the possibility of a therapist’s, “Inability to know the actual person you are speaking with and increases opportunity for fraudulent representation by patients in their lives and their behavior.”

Alliance, the second theme, was considered jeopardized by some participants' when using the Internet as described in the vignette. Those with this response expressed concerns such as this participant who stated, "It's not as easy to evaluate the whole person and build mutual trust." Another participant who described the alliance risk slightly differently stated, "Dr. Lee is missing a lot of important clinical information and injuring her/his patient's alliance. The patient may experience Dr. Lee as more available than she/he truly is - an increased risk for the patient and therapist." The third theme endorsed by participants as a risk was *privacy*. One participant expressed the following concern, which reflects similar concerns of other participants, "Dr. Lee might not be able to control what happens with the digital data, it could be taped and shared with others." Closely connected to privacy concerns is *confidentiality*, the fourth risk theme. Participants expressed concerns such as "Danger of a massive confidentiality failure."

The fifth risk, *limit of therapist influence*, was described by participants such as this respondent who spoke directly to the possible challenge of running a group over the Internet. The participant stated, "It might be harder to run the group and therefore be less effective." Another participant suggested Dr. Lee would be, "Unable to maintain control of the environment on the other end," and yet another questioned, "Is the therapist able to provide a safe container for the therapy work?" This respondent indicated both therapist influence and also *safety*, the sixth risk. Another participant said this about safety: "Crisis management will be difficult without involving local authorities." The final theme endorsed by participants of the Internet questionnaire was *legal concerns*. Participants who expressed legal concerns reported similar risks such as this participant who stated, "He might open himself up to more litigation." Another suggested

concerns regarding licensure and posited, “It is possible that Dr. Lee is not licensed to practice in states in which his clients reside?”

Facebook benefits. Thirty-two participants completed the Facebook questionnaire. Two major themes emerged, (a) value to consumer, and (b) access. Subcategories were coded for both of these major themes. For the theme of *value to consumer* the following subcategories were coded: (a) resource provision; (b) educational value; and (c) public service. Participants who reported resource provision as a benefit suggested responses such as, “I think links to resources are an excellent idea. I’m a stronger supporter of client education and self help.” Another suggested, “He is providing an important public service by including links to helpful resources.” Yet another indicated, “Providing ‘screened’ information regarding common mental health disorders and references to helpful services likely a good way of making referrals.” Those that suggested the benefit of educational value reported similar benefits such as this responded who said, “The benefits of Dr. Lee using Facebook have mainly to do with education and networking. He is giving his public information about disorders and treatment, and providing them with links to services that could be helpful.” Those that reported public service as a valuable to consumers had similar responses as this participant who stated, “I feel like something that psychologists have historically done poorly is properly informing the public, en masse, about proper psychoeducation. This could represent a step in the right direction.”

The second major theme, *access*, has four subcategories: (a) reaching those in their 20s and 30’s; (b) reaching more people; (c) marketing; and (d) networking. Those suggesting Facebook was a format conducive to *reaching those in their 20s and 30s* suggested similar sentiments as this participant who stated, “Will reach client in their 20s and 30s makes her seem

available and up to date.” Another wrote Facebook might, “Attract more clients, especially younger ones.” Those who wrote about *reaching more people* did not specify age and therefore were coded separately. Participants in this subcategory wrote such things as this example: “Social media sites are an increasingly popular way of communicating and finding resources. People that may not have know about his services another way will have access to this potentially helpful information.” Another wrote, “The benefit is that the available resources become advertised and known to more people discretely.” *Marketing*, the third subcategory under the theme of *access* yielded responses such as this one, “Increased exposure and utilization of testimonials increase the likelihood that his practice will be targeted by new patients. Good for marketing purposes.” The final subcategory of *provided insight into the networking*, one participant wrote:

The benefits of Dr. Lee using Facebook have mainly to do with education and networking. He is giving his public information about disorders and treatment, and providing then with links to services that could be helpful to them. To a certain extent, the content of his sit might do public relations for the field of psychology in general, as it has the aspect of a psychologist/doctor sharing his expertise for the public benefit.

This not only reflects the concept of networking but also encompasses many of the subcategories of the access and consumer value themes of the Facebook questionnaire.

Facebook risks. Of the 32 completed Facebook questionnaires, five risks emerged: (a) testimonials; (b) boundary concerns; (c) patient perceptions; (d) disruption of therapeutic process; and (e) confidentiality. The first risk category, *testimonials*, reflects the concerns participants’ had with patient’s posting on a Facebook wall. One participant wrote this concern

regarding the, “Disclosure of personal information by clients. Someone who is unhappy with Dr. Lee’s services might write a negative comment.” Another suggested a concern of the good patient concept and stated, “The patient might be trying to please the therapist.” This example also illustrates *boundary concerns*, the second theme. Subcategories under *boundary concerns* were: (a) boundary violations, such as the example just mentioned; (b) dual relationships; and (c) advisory role. Participants endorsing the risk of dual relationship stated such concerns as, “Can be viewed as unprofessional and potentially unethical in crossing boundaries and dual relationship.” Those who found risks regarding taking an advisory role suggested Dr. Lee, “has the possibility of inadvertently slipping into an advisory role with people who ask questions and seek advice of a clinical nature.”

Patient perception was the third risk theme reported by participants of the Facebook questionnaire. Those who endorsed this risk indicated concerns of what other patients might think of the Facebook as a venue for interacting with a therapist. One response suggested, “Dr. Lee is setting-up ‘competition’ among clients for the best testimonials and might be seen as ‘playing favorites.’” Some participants expressed risk to the *therapeutic process*. Those suggesting this risk stated such concerns as,

Dr. Lee runs the risk of effecting the therapeutic alliance with his patients in a negative way. By having a "fan page" he is facilitating the breakdown of boundaries that protect the therapeutic process and facilitate it. Clients may act out inner conflicts and transferences without addressing them where they belong, within the therapeutic relationship.

The final theme, *confidentiality*, was the most identified risk by participants. Many simply stated, “confidentiality,” and others elaborated more such as this participant who stated, “Major issues with confidentiality, although clients are voluntarily becoming members of this page, however, given that they are clients, they may not fully understand the risk of exposing themselves due to vulnerabilities.”

Smartphone benefits. Themes of benefit endorsed by the 30 participants of the Smartphone questionnaire were: (a) efficiency; (b) improved work quality, and (c) access. The first theme, *efficiency*, had two subcategories: (a) time savings/general efficiency, and (b) schedule management. Those that described times savings/general efficiency as a benefit wrote such comments as, “less paper, more efficient,” and, “better time management - therefore she can see more clients.” Participants who described schedule management benefits suggested, “she can be on top of her scheduling at all times with the capability to travel and keep tabs on her practice.”

The second Smartphone benefit theme, *improved work quality*, yielded responses that fell into four subcategories: (a) prepared for patient emergencies; (b) documentation; (c) interprofessional exchange; and (d) improved response time to patient needs. Those participants whose responses reported better emergency preparedness suggested such benefits as this participant who stated, “in case of emergency Dr. Lee has ready access to client home addresses.” Those who endorsed the benefit of improved documentation had such responses as, “Can transfer email and printed voice mail to client chart. Can chart session notes from home, train while commuting.” The suggested benefit of *interprofessional exchange* was described by

such responses as, “Can transfer data, after signed consent from client, to other professionals.”

The third subcategory, improved response time to patients needs, has responses such as:

Dr. Lee is able to keep her clients up to date in a mode not previously possible. She has access to client charts and files to refer to before calling them back regarding a concern they might have, giving her as much information as possible. Being able to send reminders, documents, and reports via e-mail relieves a burden of phone calls.

The third theme within the Smartphone questionnaire was, *access*, and two subcategories were coded, (a) convenience, and (b) access. Those participants who endorsed convenience suggested such benefits as, “It's easy to get work done on the go.” Those that endorsed general access as a benefit stated similar responses as, “Speedier access to information,” and “Immediate access to his or her files and patient's number.”

Smartphone risks. Of the 30 Smartphone questionnaires, four risk themes emerged: (a) confidentiality; (b) loss of privacy; (c) dual relationships; and (d) technology failure. Regarding *confidentiality*, five subcategories were coded; (a) general confidentiality; (b) HIPAA; (c) Internet security (d) data loss; and (e) data theft. Nearly all participants reported risks associated with general confidentiality, stating simply “confidentiality” as a risk. Participants who expanded further wrote, “Use of technology in this way poses a huge threat to confidentiality. Someone could easily access client charts other than Dr. Lee.” Regarding HIPAA one participant stated Dr. Lee would “Have to insure that all HIPAA law requirements are met.” Participants who suggested internet security as a risk wrote, “I believe technology is not yet secure enough to ensure client confidentiality - Thus the primary risk lay in the exposure of client info.” Those expressing concerns of data loss expressed such concerns as “the loss of equipment could

interfere with confidentiality.” The final subcategory within the confidentiality theme is data theft. Participants endorsed such concerns as “hackers,” and “someone could get the data even with a security code.”

The second theme, *loss of privacy*, had no subcategories. Participants who reported this risk often coupled it with the loss of confidentiality. One participant suggested Dr. Lee would “need to inform clients so they may object to loss of privacy.” The third theme, dual relationships, also had no subcategories and participants stated it “creates additional avenue for patient communication which can raise complicated issues.”

The fourth and final risk theme endorsed by respondents of the Smartphone questionnaire is *technology failure*. Two subcategories emerged (a) technology breakdown and (b) user error. One participant simply stated, “Technology can breakdown,” while others reported the “system crashing” as a risk. Regarding user error, one participant wrote about her experience receiving private information that was not meant for them. The participant wrote, “Possible confidentiality issues if errors occur. I routinely receive fax information for patients records that are not mine.” While another respondent suggested the “increased risk of making mistakes” as a possible outcome.

Second Life benefits. Thirty-two complete Second Life questionnaires yielded three themes: (a) comfort; (b) venue to rework trauma; and (c) access. Participants who suggested comfort as a benefit reported less threat and the comfort of working from home as benefits such as this participant who wrote,

The virtual medium allows people the possibility of participating in psychotherapy in a convenient setting. It also minimized potential stigma. It has been frequently observed

that the removal of the face to face encounter allows people to speak more freely and be more revealing of personal information.

The second benefit theme, *venue to rework trauma*, emerged in such responses as “this could possibly benefit the client who, having suffered trauma, may be more comfortable in a virtual setting.”

The third and final benefit within the Second Life questionnaire is *access*. Three subcategories emerged: (a) general access; (b) serving more people; and (c) reaching resistant populations. Participants who discussed general access as a benefit wrote similarly to this participant who stated, “It provides easily accessible therapeutic intervention without leaving the comforts of home or office.” Those that suggested serving more people as a benefit reported suggestions such as this response stating, “It increases access to interactive evidence-based treatments to people in remote areas.” Finally, reaching resistant populations was suggested as a benefit. One participant wrote “I think it may make it possible for deeply agoraphobic clients to make initial contact with a therapist.”

Second Life risks. Of the 32 Second Life questionnaires, six themes of risk emerged; (a) no contact; (b) confidentiality; (c) identity concerns (d) promotes pathology; (e) underdeveloped rapport/alliance; and (f) loss of important Information. The theme of *no contact* can be represented by this participant who wrote, “A sufficient trusting relationship may not be possible especially since the patient and therapist have never met.” The second theme, *confidentiality*, was endorsed by participants who reported similar risks such as, “There is added risk of protecting confidentiality.” Regarding, *identity concerns*, the third theme identified, one participant wrote, “Dr. Lee would probably have trouble facilitating emergency intervention if needed, due to

distance and not knowing the clients true identity.” Participants who discussed *promotion of pathology*, the fourth theme, reported statements of risk such as, “this might promote isolation from ‘real’ world or escape to virtual world, rather than a healing and reintegration.” Those who suggested the fifth theme as a risk, underdeveloped rapport/alliance, stated, “it may be a superficial relationship rather than authentic. (the person can lie about situations easier). Lacks the depth and observation from in person contact.”

The final theme or risk within the Second Life questionnaire was *loss of important information*. Subcategories coded were: (a) risky without intake evaluation; (b) no control or awareness of effectiveness; and (c) loss of nonverbals. One participant who endorsed an increase risk without an intake evaluation wrote the technology suggested, “should be used only after a thorough assessment of the patient.” Participants who suggested lack of control or awareness of effectiveness stated similar concerns as this participant who wrote: “Trauma treatment has substantial risk that a therapist must monitor - such monitoring is impossible through avatars, as it would depend on the client to be aware of their affect regulation, the very function impacted by trauma.” Finally, loss of nonverbals, is represented by the following participant quote: “A wealth of non-verbal information is unavailable to the therapist.”

Chapter 4

Discussion

The current study was designed to investigate the attitudes and perceptions of the psychological community regarding the benefits and risk of using technology as a means of therapeutic intervention. It also examined how likely psychologists and psychology students in training are to use technology in their work and what technologies they currently use. A sample of 131 professional psychologists and psychologists in training provided their perceptions of both risks and benefits to using advanced technologies such as Facebook, Internet and Skype, Smartphone, and Second Life in clinical practice through their reactions to vignettes describing the utilization of these advanced technologies. Investigating the role of technology in psychotherapy practice is a relatively new area of scientific inquiry. A Grounded Theory approach involving broad questioning allowed the researcher to evaluate study participants' perceptions of advanced technology while quantitative analyses allowed for comparisons among perceptions across the different vignettes describing technology use. The themes that emerged from qualitative analyses reveal that there are distinct patterns in the way that psychologists think about technology use.

Of the four vignettes, Smartphone technology was considered more favorable among participants than Second Life technology. This preference might be driven by societal acceptance of phone and mobile devices. Telephone communications are becoming more multidimensional

as Smartphone technology continues to change. Participants believe that the advancements associated with Smartphone technology have both benefits, such as access and better patient care, and risks, such as confidentiality and privacy, if utilized as a psychotherapy tool.

While participants noted that access was a benefit across all four vignettes, cost savings was only endorsed as a benefit among the Facebook and Internet vignettes. Some technologies, including the ones investigated in this study, have the ability to provide easy access to cost effective psychological services by reducing expenses such as transportation and parking.

Though participants perceived benefits across all forms of technology investigated, risk themes also emerged among all the vignettes, especially in relation to boundaries and confidentiality. Boundary concerns were endorsed regarding patient/therapist roles and technological etiquette. Technology provides immediacy to interactions and exchanges that once took days or weeks. This immediacy might encourage overreliance on the therapist or even the technology, and may conflict with the distance sometimes needed to foster independence and skill utilization for patient growth. The risk of confidentiality proposed by participants points to their doubt regarding the security of these technologies. Participants' concerns related to security and confidentiality include but are not limited to hacking, password protection, and the possible loss of a mobile device. Current APA ethical codes are written broadly in relation to technology use and do not give psychologist explicit guidelines or instruction regarding these kinds of conflicts.

The results of quantitative analyses demonstrated that there were no meaningful differences among participants' level of ethical concern or consideration of using advanced technology based on personal and professional demographics. There was also no difference in

technology endorsement across age or therapeutic orientation. It might be presumed that those with more dynamic orientations and those in an older age bracket would be more hesitant to consider using advanced technologies. The results did not support this.

Implications

There are various implications to consider, including implications for training, research, professional practice, and professional regulation.

Training implications. High ratings on risks of technology in this study speak to the perceived need for ongoing training. Technology is here to stay, and training to minimize risks will be essential. As Taylor et al. (2010) suggests, early career psychologists will be faced with more requests to engage in social network interactions with patients. Turning to the seasoned professionals for assistance and supervision may yield little support as they may be less familiar with technologies than early career psychologists. A developing psychologist in his or her final stages of training needs supervision that is relevant and supportive. Therefore, training programs may need to offer students more training on technology such as SNW and its impact on therapy.

Video chat (e.g., Skype) is becoming an increasingly popular way to continue providing care to patients from a distance as evident by the Departments of Veterans Affairs use of Telemental Health in anger management treatment for veterans diagnosed with PTSD (Morland et al., 2011). The nearly 20% of professionals surveyed in this study who endorsed using such technology may or may not have been trained in using it, or in the ethical implications of its use. This study suggests participants are concerned that Skype can only capture so much of a patient's interpersonal reactions and responses. The information lost may be imperative to

rapport, diagnosis, and treatment. Training outlining when to use this technology and acclimating patients to it will be needed for protection and wellbeing of both patient and therapist.

Virtual or Second Life technology has shown to be useful in addressing the posttraumatic reactions of military men and women compared to treatment as usual (McLay et al., 2011), and those that use this technology often receive extensive training. Of all the technologies in this study, Table 3 illustrates Second Life technology was considered the least beneficial and perceived to be the most ethically concerning. Similar to Skype, Second Life technology is a developing area of clinical intervention. More training is needed for clinicians who are interested in using this technological modality.

Mobile devices like the Smartphone have rapidly changed the landscape of communication. One small device has the power to Skype, engage in social networking, and even provide Virtual Reality stimuli. Smartphone technology might be akin to the slippery slope Zur et al. (2009) described. The slope Zur and colleagues discuss is in relation to inadvertent self-disclosures and use of Smartphones may increase the likelihood of such disclosures. Participants of this study reported Smartphone technology has the ability to unintentionally break down the protective barriers of confidentiality and privacy and increase the likelihood of problematic boundary issues. Training programs teach developing clinician's how to secure documents, protect identity, and abide by ethical guidelines, but more training is needed on how technologies such as Smartphones can unknowingly erode confidentiality, privacy, and patient/therapist boundaries.

Research implications. Future research is needed to address the areas participants described as risks and benefits in this study. One example might be researching the influence

technology has on the therapeutic alliance and relationship. Some participants reported risks of alliance rupture as a result of using technology. Alliance and rapport are important qualities to treatment progress and understanding the impact technology has on alliance and rapport will help practitioners recognize to what degree technology can impact this important element of treatment.

Another example might be looking at the direct effect social networking has on relationship styles. Prensky (2001) suggests that the digital native and digital immigrant have varying experiences of technology's impact on education and social interactions. The digital native, as compared to the digital immigrant, has grown up with technology as a standard for social, educational, and entertainment interactions. These groups might have different experiences and understanding of the impact of technology on daily life. As technology continues to influence these areas of life, it will also likely impact the discussion and intervention process within the therapy office for both digital natives and digital immigrants.

The benefits associated with technology use that participants identified in this study warrant further investigation. Increased access to mental health treatment was endorsed as a benefit across all technologies studied. More information is needed regarding cost effectiveness to patient and therapist, ability to bill for services provided, and comparisons of treatment outcome in traditional psychotherapy versus technology-assisted therapeutic intervention.

The reduction of mental health stigma is an interesting benefit that emerged among the Internet questionnaire respondents. Understanding how technology is breaking barriers that have long perpetuated the stigma carried by mental health deserves more research.

This study also asked for the perspective of the practitioner, not the patient.

Understanding the experience of the patient is equally as important and warrants further research. Comparing the perceived risks and benefits of both patient and practitioner could provide useful information regarding where the field of psychology needs to go in terms of staying relevant and patient focused.

Finally, given the rapid change in technology there will always be a need for research regarding the implications it has on the field of psychology. There are a number of technologies that were not investigated in this study. Continual monitoring of trends within the field as well as popular culture will advise researchers and clinicians on novel ways to connect to those they serve.

Professional practice. The current study confirms that some technologies are useful to practitioners. Some of these are widely used, such as computers, email, and cellular phones. Others technologies are being used by a minority of psychologists, but at a rate that demands notice. For example, almost 20% of respondents reported using video chat for professional purposes. Technologies that have become frequently utilized may or may not enhance the work experience of psychologists and the therapeutic experience for clients. Additional research on the effects of using technology in professional work is sorely needed.

Understanding technology in professional practice may require creative and flexible methods of study. Anecdotal evidence is generally considered non-scientific, and thus avoided in research endeavors. However, when it comes to using technology in professional practice anecdotes may prove to be of substantial value insofar as they demonstrate what is possible. For example Dr. Joel Gregor, Director of Training at George Fox University's Behavioral Health

Clinic, uses Skype to conduct family therapy with an expatriate family in a remote, underserved area overseas. The Veterans Health Administration has also approached video therapy successfully with their Telemental Health system. Morland, Greene, Ruzeck, and Godleski (2010) of the Nation Center for PTSD report success in reaching those in remote areas who suffer from PTSD who would not otherwise seek treatment or have access to treatment within their area.

Technology is also proving useful to those within the primary care mental health setting. Dr. Neftali Serrano, behavioral health specialist at Access Community Medical Centers in Madison, Wisconsin recently began using Skype to provide inter-clinic supervision and patient consultation. This unique approach to system management allows patients to be seen at any clinic by breaking down access barriers. Another example of technology impacting patient care comes from the White River Junction VA medical center where tablet computers are being used to administer, score, and track patient progress on common depression, anxiety, and trauma measures. Pomeranz et al. (2010) indicate using this technology helps “track individual, cohort, and system outcomes. In addition, the scores help focus and streamline the diagnostic assessment itself (p. 118).”

These examples are just a few ways technology is becoming an integrated part of psychotherapy. As with any intervention, the need for ethical contentions is imperative. The Ethical Principles of Psychologists and Code of Conduct (APA Ethics Code; American Psychological Association, 2010) still apply. Although written broadly, the ethics code outlines its “application to a variety of contexts, such as in-person, postal, telephone, Internet, and other electronic transmissions” (p.1). Barnett (2011) suggest that although these guidelines are broad,

what applies to in-person therapeutic intervention applies when technology becomes a variable in treatment. Moreover, if an advanced technology is used as a therapeutic tool, the risk to patient confidentiality needs to be clearly outlined within informed consent.

Professional regulation. The results of this study also suggest that regulatory bodies have an obligation to address the impact technology is having on patient care. The clinicians and students surveyed within this study raised ethical concerns regarding the use of the technology. Yet, the results of this and other studies demonstrate that psychologists are using these technologies. Individual researchers are tackling questions regarding technology and a burgeoning body of research is forming. A task force providing guidelines for appropriate technological interventions may be a future priority for the APA. Similar to task forces that have investigated the best treatment options for minorities, a study might be helpful directing clinicians as they incorporate technology into their practice of psychotherapy. Furthermore, state licensing boards, and the ethical codes that each state requires their psychologists abide by may also need alterations when considering the effect of technology on patient care.

Limitations

Limitations of this study relate to sampling, methodology, and the rapid advancement of technology. There was a restricted age range of respondents, with the average age being 50.4 years, in part because the response rate among students was quite limited. The extent to which the results reflect the perceptions of early career psychologist and students is unclear.

Sampling bias is another possible limitation. Two survey methods (electronic and paper) were used in the hopes of reaching the greatest number of participants. It was speculated that surveying students via e-mail with the incentive of a popular media/music device would attract

willing participants. This was not the case. Overall students' response rate was much lower via email than professionals' response rate via US mail. Moreover, it is unclear how participants who responded differ from those who did not

To keep the study at a reasonable and approachable size only a few technologies were assessed. These technologies were selected because of their significant impact within social and cultural norms, as well as their emerging influence on the field of psychology. More types of technology could have been explored. Similarly, a limitation may be the short narrative used to describe each technology. Placing each technology in a story may have limited the imagination of participants in regards to usefulness, risk, and benefit. Asking more open-ended questions may have possibly yielded a richer qualitative data set.

Since reviewing literature, gathering data, and writing this study, technology continues to evolve. The field of psychology has incorporated advanced technologies such as the APA Wiki and the Nation Center of PTSD's recent development of the PTSD app. Rapid technological advancement will be faced by all studies researching the benefits, risks, and usefulness of technology. This limitation makes research such as this study important but also challenging.

Conclusions

The literature and this study suggest technology is continuing to advance and interact with psychotherapy. This study investigated advanced technologies such as Facebook, Skype, Internet, Second Life, and Smartphone communications and clinician's perceptions of their utility in clinical practice. The results of this study suggest that participants believe advanced technologies have many benefits and risks to patient care. The field of psychology is faced with a choice to incorporate these advanced technologies, offer better training, alter ethical standards

and codes to protect both patient and therapist, and to address the risks found within this study.

This study is important because it identifies what members of the psychological community see as areas to address related to technology and clinical practice. More investigation into the benefits and risks found within this study will continue to deepen the literature base and further clarify the impact of technology on psychotherapy.

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Appendix A
Questionnaire

Dr. Pat Lee

Dr. Lee's is using Facebook for advertising. Some clients and former clients have become members of Dr. Lee's "fan-page" and have posted testimonials on Dr. Lee's Facebook "wall." Also on the Facebook site, Dr. Lee has links to helpful services in the area, resources about common mental disorders, and helpful tips for life.

In your opinion, what are the benefits of Dr. Lee using technology in this way?

In your opinion, what risks is Dr. Lee introducing by using technology in this way?

Please indicate at what level you would consider using the technologies utilized by Dr. Lee.

Not at all			quite possible			Yes
1	2	3	4	5	6	7

To what extent do you have ethical concerns about the technologies utilized by Dr. Lee.

Not at all			quite possible			Yes
1	2	3	4	5	6	7

MORE ON BACK

Dr. Pat Lee

Dr. Lee has developed and launched an Internet chat group for substance users. Dr. Lee's site also allows Dr. Lee to provide individual therapy over the Internet, using Skype. Through this web site, Dr. Lee is able to provide individual and group services to clients throughout the United States.

In your opinion, what are the benefits of Dr. Lee using technology in this way?

In your opinion, what risks is Dr. Lee introducing by using technology in this way?

Please indicate at what level you would consider using the technologies utilized by Dr. Lee.

Not at all			quite possible			Yes
1	2	3	4	5	6	7

To what extent do you have ethical concerns about the technologies utilized by Dr. Lee.

Not at all			quite possible			Yes
1	2	3	4	5	6	7

MORE ON BACK

Dr. Pat Lee

Dr. Lee has recently updated his personal computer and iPhone and can now sync all contacts between his computer and phone. Dr. Lee can now access client charts and files from his iPhone and can even email clients a reminder, documents, and reports regarding their treatment.

In your opinion, what are the benefits of Dr. Lee using technology in this way?

In your opinion, what risks is Dr. Lee introducing by using technology in this way?

Please indicate at what level you would consider using the technologies utilized by Dr. Lee.

Not at all				quite possible				Yes
1	2	3	4	5	6	7		

To what extent do you have ethical concerns about the technologies utilized by Dr. Lee.

Not at all				quite possible				Yes
1	2	3	4	5	6	7		

MORE ON BACK

Dr. Pat Lee

Dr. Lee has recently updated her personal computer and iPhone and can now sync all contacts between her computer and phone. Dr. Lee can now access client charts and files from her iPhone and can even email clients a reminder, documents, and reports regarding their treatment.

In your opinion, what are the benefits of Dr. Lee using technology in this way?

In your opinion, what risks is Dr. Lee introducing by using technology in this way?

Please indicate at what level you would consider using the technologies utilized by Dr. Lee.

Not at all				quite possible				Yes
1	2	3	4	5	6	7		

To what extent do you have ethical concerns about the technologies utilized by Dr. Lee.

Not at all				quite possible				Yes
1	2	3	4	5	6	7		

MORE ON BACK

Dr. Pat Lee

Dr. Lee has developed and launched a practice devoted to the treatment of trauma through Second Life (a virtual world where people interact through constructed identities, called avatars). Though the client and psychotherapist never meet in real life, Dr. Lee uses evidence based principles in working with clients through Second Life.

In your opinion, what are the benefits of Dr. Lee using technology in this way?

In your opinion, what risks is Dr. Lee introducing by using technology in this way?

Please indicate at what level you would consider using the technologies utilized by Dr. Lee.

Not at all			quite possible			Yes
1	2	3	4	5	6	7

To what extent do you have ethical concerns about the technologies utilized by Dr. Lee.

Not at all			quite possible			Yes
1	2	3	4	5	6	7

MORE ON BACK

Please mark all technologies you use within your profession:

☐ Email	☐ Computerized assessment administration
☐ Instant messaging	☐ Online therapeutic interventions such as (egetgoing.com or HelpHorizons.com, or others)
☐ Computer	☐ Suggest website as referral source
☐ Electronic record keeping	☐ Social networking sites (such as Facebook, or Myspace)
☐ Cellphone	☐ Professional networking sites (such as Linked)
☐ Smartphone	☐ Personal webpage
☐ Video conferencing	☐ Advertise on a professional affiliation's webpage (Such as APA or your state Psychological Association)
☐ Video chat (such as skype)	
☐ Computerized assessment scoring	
-

Your age:

Sex: Female Male

Ethnicity: African-American Asian-American European-American
Hispanic/Latino(a) Native American International non-American
Other

Highest degree held: BS/BA Masters PhD/PsyD

If you are licensed, what year were you first licensed?

If you are a student in a doctoral program, what year are you in your program?

Appendix B

Code Book

Code Book

Benefit

1 Can be more efficient - maybe. Being so wired can also detract from the 1-1 interaction that is the basis of therapy. Could being so wired be more stressful or less stressful?

2 Save time. Keep better records

3 Easy accessibility

4 Access 24/7 and regardless of location - in case of emergency has ready access to client home address. Can transfer email and printed voice mail to client chart. Can chart session notes from home, train while commuting.

5 Has access to client files wherever needed. Can add information in file from anywhere she he maybe. Can transfer data, after signed consent from client, to other professionals. Can be better prepared with data available for emergencies. Can forward data to insurance companies access data for phone clinical review?

6 Easy access to information.

7 Better mobility, away from the office efficiency of communication.

8 The only benefit is convenience for Dr. Lee

9 Less paper. More efficient. Can work from any place. Contacting patients is easier.

10 Always having your data at hand - especially if you are not in your office.

11 More organized. Faster response.

12 You should really ask Dr. Lee - I don't need online access to records, nor would they help. One of the organizations I work for does have computer based phone reminder systems, and if is helpful for this population - largely unsophisticated consumers of mental health services.

13 Speedier access to information. More convenient.

14 Schedule of appt./ client contact - emergencies, etc. Documents re: release? (Unsure of validity) or request of info. Perhaps very useful for professional to professional exchange of information.

15 Simplicity: Streamline information. Accessibility.

16 Better time management - therefore she can see more clients, or have a better work/life balance. More responsive to clients (timely). Dr. 18. Lee is less tied to her office.

17 Speed, required, turnover of information per her practice.

18 Efficiency. Access

19 Ease of communication. Connection with adolescents. Scheduling ease.

20 Immediate access to her files/pt's number tec. Or any [] from anywhere. Would make her more responsive to her pt in critical {situations}. Would probably help in billing, if not do billing.

- 21 It may enhance what is the most...
- 22 Efficiency. Accessibility. Appealing to clients.
- 23 Immediate access to information.
- 24 Convenience for Dr. Lee. Greater accessibility of pt to Dr. Lee.
- 25 END OF SMARTPHONE Generalization of treatment issues.
- 26 Dr Lee can make more money by treating a higher volume of pts. Pts have convenience of not going to Dr. Lee's office.
- 27 Can feel safe to the participants as well as accessible and potentially anonymous and more private and familiar thus more willing to make use of it.
- 28 Internet chat allows for inexpensive, easily accessed therapy available across a wide geographic spectrum. Especially important for those in rural areas.
- 29 I am not really familiar with these technologies. The only advantage for the [indiv] therapy using Skype would be for individuals in remote areas with no access to therapists.
- 30 Reaching people in remote area who have internet access. Another therapy option that may be used to engage this hard to reach group.
- 31 Access. Expertise - if he is? Time. Money
- 32 His services can reach and treat a large number of patients who are unable to meet with him personally, a char group may provide peer support.
- 33 Ease of access. Involvement between many individuals. Sharing of numerous types of experiences.
- 34 Accessibly is a strong benefit, especially for those in rural areas, where access to services may not exist without lengthy travel. Access to a diverse population with differing needs might support clients in obtaining view of substance-abuse related issues and therefore greater perspective. Convenience of time and place with some level of privacy-however this privacy could also pose a risk fact as discussed below.
- 35 May be able to provide services to individuals who would not otherwise have access. I become entrusted in couching because of their service model. I think this could work in couching, but not in therapy. Face to face is my preferred model because I use very subtle cues to determine meaning, [], etc.
- 36 Few if any. The chat site can be a waste of time and at worst, harmful. In either case, however, Dr. Lee would be well advised to [monitor] it. Substance users are infamous for gabbing unproductively about themselves and what they think are their problems. Group and indiv. treatment of them requires structure and focus by the therapist. In an unmonitored chat group like this some members will inevitably pray on others or relapse.
- 37 Younger people might be more easily reached and engaged by using this technology. People also feel it is more convenient to use the internet rather than having to leave the house or drive to an office.
- 38 Easy access, maximizes resources, for some easier to share in a non face to face live situation.
- 39 Convenience, Reach (global), distance that may encourage openness, sharing services with those that may not otherwise seek help.

40 More accessible for more people. He can "meet" with clients when he or they are away.

41 Increase access for pts reduce geographic and or transportation issues. Reduce stigma.

Increase engagement in tx []. Increase anonymity.

42 Can reach people who could never come to a therapists office but who are comfortable with technology. More geographic accessibility. May get more clients/income (if billing worked out).

43 Treatment availability to those far from resources. Treatment availability to those whose sense of stigma prevents accessing services in person. Meets [any] client's desire for great privacy (not being seen going into therapy office). Opportunity to greatly expand his practice. Treatment in tune with young adults lifestyle.

44 Benefits might include ability to reach clients who otherwise could not get to her office or to a chemical dependency facility.

45 Able to maintain a group, which is sometimes difficult face to face. With Skype you can see some nonverbal cues albeit a bit distorted.

46 Can overcome limitations of distance and geographical location and make his services accessible to a large group of clientele.

47 I know I should be happy for Dr. Lee, but the only advantage I see is the instant access to phone numbers; our work isn't very chart dependent.

48 No obvious benefits

49 Private, cost effective, access to under accessed populations

50 Ability to reach populations who may be unwilling or unable to travel for therapy, or who may be unable to pay. Allows individuals anonymity.

51 enables people to engage in interactions with each other in group and or [] therapy.

END OF INTERNET

52 Social media sites are an increasingly popular way of communicating and finding resources. People that may not have know about his services another way will have access to this potentially helpful information.

53 Will reach client in the 20's and 30's/ makes her seem available and up to date.

54 he is able to reach many more people who may be in need of psychological services. He is providing an important public service by including links to helpful resources.

55 Means of maintaining contact with former patient, increasing likelihood that, should they again require assistance, they will return to his practice. Increased exposure and utilization of testimonials increase the likelihood that his practice will be targeted by new patients. The links/tips that he she posts enhances his professional credibility. Good for marketing purposes.

56 For younger clients this would (could) be a powerful way to advertise. In some ways this is similar to a professional web page with helpful advice and descriptions of services. In other ways it is exposing other through testimonial and great care is needed there.

57 Educational value of links to services/resources/helpful tips.

58 The benefits of Dr. lee using facebook have mainly to do with education and networking. He is giving his public information about disorders and treatment, and providing them with links to services that could be helpful to them. To a certain extent, the content of his site might do

public relations for the field of psychology in general, as it has the aspect of a psychologist/doctor sharing his expertise for the public benefit.

59 Attract more clients, especially younger ones

60 If his resources are "good" making them available is maybe ok - I think testimonials interfere with therapeutic process for other clients.

None

XXXX None - unprofessional

61 It is a topic of discussion for many of us. I am assuming it is a business - limiting facebook, if so, clients feel "friended" are able to see what current issues are being addressed by Dr. Lee, his comments on current events.

62 Providing "screened" information regarding common mental health disorders and references to helpful services likely a good way of making referrals.

63 Makes information easily accessible to large numbers of people. Limited amount of time required.

64 Potential seen as a resource by consumers because of links. But this is a very small possible benefit for a huge risk on the downside. No real benefits - only negatives in my opinion. He could do the links on a website which would be seen as professional.

65 Referrals. Professional networking

66 I am not sufficiently familiar with the technologies to be able to evaluate. Sound as though it could be helpful to someone for some purposes, such as "helpful services in the area."

67 To Dr. Lee: advertising internet and tapping into "current" generation communications. To client: Providing some helpful info.

68 Links to services and resources could be helpful. But, better on a website with no personal info.

69 They are limited in that the issues surrounding patient confidentiality are huge. Even if the clients voluntarily post themselves - [the minimal benefit would be] The information to reputable websites like APA.org

70 I think links to resources are an excellent idea. I'm a stronger supporter of client education and self help.

XXXX UNETHICAL!

None END OF FACEBOOK SECTION

71 Gives structure to change process utilizes metaphor for change that is not as threatening as personal contact.

72 Could allow pt a means to re-work the trauma which could allow healing. Might be a helpful adjustment to in office therapy/support group. Might be helpful in homebound patients, to those in areas where psychologists/mental health is not readily available.

73 It may allow Dr. Lee to treat patients who otherwise would not have had access to him or her, due to geographical or other constraints. It may allow Dr. Lee to treat patient who have difficulty with actual in-person verbal interaction and emotional intimacy, and or who are fearful of exploitation of by therapist.

74 I would need to know more about this project before I could comment. I would be concerned

74 I would need to know more about this project before I could comment. I would be concerned about the lack of a real relationship for trauma clients.

75 No idea - Never heard of this program.

76 can serve more clients from a wider geographical location.

77 I could speculate; Though without direct experience of avatar use, nor second hand info from other, reading material, I am reluctant to speculate. However, a large percentage (20% ? to 80 %?) of people who could benefit from some interactive psychological program/treatment, do not avail themselves of 78 Such. Maybe Lee's program would reach some of these folks.

79 Greater reach - allowing more people to receive services. Those who live in rural areas or are unwilling or unable to come in person.

Don't know

80 It provides easily accessible therapeutic intervention, without leaving the comforts of home or office. Anonymity is protected if not having to use real names. Client may feel freer to divulge serious problems less prone to judgment when there's no eye contact or interaction. Less overhead and can provide service to a wider audience. Provide variation of hours of service not limited to 8-5 - can give evening hours.

81 It is possible that person who would otherwise not seek treatment would do so in this format. Many who are avid users of social networking could connect in treatment through this format.

82 In vivo experiences in some cases are helpful. Careful construction of the situation and people may [] an enhanced sense of reality.

83 This may be a way of working with children as a play therapy.

84 People who wouldn't otherwise engage in treatment might because they can avoid the interpersonal factor.

85 Reaching some clients that would not likely be reached.

86 Creative - but of certain pathologies, it should be used only after a thorough assessment of the patient /client in the hands of the wrong person, it could head to further serious problems.

87 Given that I know next to nothing about this technology, I am on thin ice with an option. This approach would be useful to those who live far from expert professional help i.e. accessibility. Perhaps this approach might feel safer for someone than the [] face-to-face therapeutic experience.

88 I'm not aware of any "evidence based principles" for working with clients solely in a virtual world. I doubt that there are many, if any benefits, in this approach.

89 I can't see any benefits. Clients need to have personal contact with their psychologist/therapist

END OF SECOND LIFE

90 INTER Able to provide services to patient who wouldn't otherwise go to therapy for various reasons such as limited time, available time but cant afford the "extras" of paying for parking etc, concern over being seen at a therapy office. Can reach more people.

91 FACE Client benefit from links, resources, tips. Fan page helpful for people looking for reviews to see comments from clients may generate type of ways they can be helped

92 INTER Convenience for client who may not otherwise be able to get to the group therapy. Also if Dr. Lee is providing services to people who otherwise could not find such services in their areas

93 SECOND I think it may make it possible for deeply agoraphobic client to make initial contact with a therapist. I don't believe there is any real change that will come from such non face-to-face contact.

94 SMART More efficient use of time. Accessibility to client info from outside the office, i.e. can work from home, coordinate care with other professionals

95 SMART Efficiency END OF PROFESSIONAL

96 START OF STUDENT Easy access to helpful links for potential and current patients, good advertising for Dr. Lee's business.

97 The benefit is that the available resources become advertised and known to more people, discretely.

98 The ability for Lee to reach out and offer support even outside of office hours.

99 On the positive side, many psychologists have websites that have useful information and links to further information

100 I think that the page is great to get information out, but I am not sure that clients should be able to post. It is to their discretion, but that information is private, and other clients may feel at risk.

101 Reach out to more people.

102 I feel like something that psychologists have historically done poorly is properly informing the public, en masse, about proper psychoeducation. This could represent a step in the right direction.

103 Dr. Lee reaches a diverse audience and connection at leisure, at distance, and allows information sharing as indicated. It affords communication at a level not unlike Blackboard and other similar educational communication formats, but at a very public and accessible level.

104 I really do not see any benefit to clients. END OF FACEBOOK

105 The use of Skype may provide client's access to treatment that may not be available in their location. Similarly, this provides treatment options for individuals with limited mobility.

106 reach a broad client base, serve patients in more remote areas, see more patients, not pay for office space because he can work from home, if Dr. Lee has special skills he can really help people not geographically close

107 To my knowledge, Skype does not offer a secure internet connection, so should not be used to provide therapy. Internet chat rooms are typically not reserved to specific users, so he might not be able to restrict who is allowed to enter the chat. I also feel that long-distance therapy can be useful in some instances (i.e. emergencies, unable to make a single appointment due to weather, etc.), that it should not be used as a primary means of therapy.

108 I am not sure that individual or group therapy delivered over the internet is a valid replacement for face-to-face. However, I do believe that under certain circumstances it could prove to be very important and useful. For example, it could be great for people who do not have access to therapy in their area due to distance or some sort of restriction in their ability to travel. END OF INTERNET

109 Dr. Lee can reach a greater scope of clientele (e.g., those in rural areas, those with insufficient means of transportation). In addition, I would assume this might reduce the costs of providing the treatment (e.g., no fee for renting out a large office/waiting room, salary considerations for support staff, etc.).

110 In the beginning objectivity may be stronger than meeting face to face.

111 I don't think there are any benefits to working through second life, except perhaps that it may engage clients who would not come to therapy. However, I believe that the active ingredient of therapy is interpersonal communication, and the client would be under some poor illusions if they felt they were actually doing therapy.

112 Maybe the client will feel more comfortable discussing the trauma he/she experienced, if he feels uncomfortable speaking about it face-to-face.

113 This could possibly benefit the client who, having suffered trauma, may be more comfortable in a virtual setting.

114 It increases access to interactive evidence-based treatments to people in remote areas.

115 The virtual medium allows people the possibility of participating in psychotherapy in a convenient setting. It also minimized potential stigma. It has been frequently observed that the removal of the face-to-face encounter allows people to speak more freely and be more revealing of personal information. It also might help to de-stigmatize psychotherapy to a younger audience.

116 A benefit of this therapeutic situation is the reduced travel cost it brings Dr. Lee's clients since they can receive therapy from their own home. Many clients from low SES communities have difficulties with reliable transportation.

117 clients don't have to travel to the therapist's office

118 Ability for the client to work through their issues in a more anonymous way. In some cases, maybe even having the freedom to present as the person they truly feel themselves to be instead of who they show to the world. Ability to service clients in areas without services. END OF SECOND LIFE

119 It can save her time, make sure she remembers everything going on and can treat clients in a better way since she has reports at easy access

120 More efficient. Better management of clients. Quicker access to files

121 It's easy to get work done on the go.

122 Dr. Lee is able to keep her clients up to date in a mode not previously possible. She has access to client charts and files to refer to before calling them back regarding a concern they might have, giving her as much information as possible. Being able to send reminders, documents, and reports via e-mail relieves a burden of phone calls and generating time-consuming reports.

123 Personal convenience

124 She can be on top of her scheduling at all times with the capability to travel and keep tabs on her practice. This increases her portability and presence within the community.

Risks

- 1 Internet security problems: Confidentiality / HIPPA issues/Danger from hacking. Losing of iPhone and threat to confidentiality. System crashes wiping out clinical files, billing, etc. Need to inform Clients and so may object to loss of privacy. When you email reports etc - other can invade privacy, easily forward to material without you knowing.
- 2 Possible security breach. Misuse by patients.
- 3 Possible breaching confidentiality. Possible reducing level of perceived (from clients pov) intimacy.
- 4 Huge confidentiality risks: What if phone is lost? What if his kids play with it? Obvious here is password protection - a serious password (not) his birth date. Most people find serious passwords cumbersome and hard to remember.
- 5 Has to insure that all HIPPA law requirements are met. 2). Has to be careful that all confidentiality is protected. 3). Data can be lost through thefts, loss of inadvertently transferred to unqualified sources. 4). Most of the risks are connected to breach in confidentiality, loss and violation of HIPPA law.
- 6 Confidentiality if information became available to others (hackers, lost phone, etc.)
- 7 Confidentiality (HIPPA) issues. Too mechanistic/less personal connection with patient. Technology can breakdown (such as your schedule).
- 8 The most significant and serious risks are loss of confidentiality and HIPPA violations especially as regards his phone. Cell phones are the most frequent items lost or stolen and techno thieves are masterful at breaking into them for information. Storing this data on his phone is highly risky.
- 9 Increased exposure. Increased risk of making mistakes. Probably not ethical. Loss of phone = loss of data.
- 10 Safety of records and confidentiality of records. Data could be lost in you loss your phone. Also someone could get the data even with a security code.
- 11 Risk to privacy and confidentiality. Poorer boundaries with patients.
- 12 Like faces, which I believe have compromised pt. confidentiality, email likewise may be a problem because of [misdirected] information, information being accessed by persons [not] appropriately entitled to information. Still, while there are potential problems, I don't believe they are likely widespread.
- 13 This is not a secure way to store client related info. He should not use his iPhone to this purpose. You, or Dr. Lee, can make phone calls from his iPhone, but that's about limits the function. He should not store data on his phone, he cannot provide 3 levels of security needed for info.
- 14 I believe technology is not yet secure enough to ensure client confidentiality - Thus the primary risk lay in the exposure of client info. To "cyber space." PLEASE NOTE: My knowledge of technology and what is available is limited.
- 15 Can't guarantee privacy/confidentiality of information.
- 16 Breach of confidentiality.
- 17 Hope she does not lose her phone or database. Possible confidentiality issues if errors occur. I routinely receive fax information for Pt records that are not my Pt's.
- 18 If not password protected, then violates confidentiality laws and ethics.

19 System crashing. Someone getting into phone/computer and accessing private information.

20 Hackers. Unwanted intrusion into files, etc. If Pt's call her direct, no {filter}, alone time.

Potential loss of records/data.

21 High risk of breach of confidentiality. One never knows to whom all emails are forward and when information is edited or taken out of context.

22 Loss of equipment could interfere with confidentiality.

23 If iPhone lost someone has easy access to pt's data. Pt data vulnerable due to insecure/unencrypted line. Creates additional avenue for pt communication, which can raise complicated issues.

END OF SMARTPHONE Information becoming public.

24 Without any in person meetings Dr. Lee is missing a lot of important clinical information and injuring her pts alliance. Many of us now use technology as a virtual reality - only revealing what we choose to when he choose to. Dr. Lee might be missing comorbid illnesses, signs of relapse, etc that would be more recognizable in person. Pt may experience Dr. Lee as more available then s/he truly is - an increased risk for pt and therapist.

25 Limits the personal relationships with the therapist and other members. Limits the nonverbal cues, will make [] more difficult to read and explore. Not as much emphasis on clinical process. Not as easy to evaluate the whole person and build mutual trust; especially with this population. Are Privacy issues for the participants built in? Where intakes done on each?

26 Less control over direction of therapeutic discussion, what is being said in chat group, and how individual might be responding.

26 Group: Having run groups, it would seem that a lot could happen that many not be constructive before a therapist can intervene. Also, clients who already have difficulty with their feelings can hide behind the anonymity of a computer. Group and indiv: Both group and indiv. would suffer from the therapist not having as much data as possible from real life observation of the client. One would expect that nuances would be missing. Is the therapist able to provide a safe container for the therapy work?

29 Those who need help many not opt to attend self-help groups live - The person-to-person contact is needed by many to enter into the recovery successfully. Confidentiality issues using technology.

30 Person flavor, risk assessment. Technology is probably not the issue - Dr. Lee is. What are his motivations and his he ethical, honest, moral? I have not watch, nor do I know Dr. Lee.

31 Breach of confidentiality. Difficulty managing patient safety/risk issues. Record keeping issues.

32 Inability to know the actual person you are speaking with. Increases opportunity for fraudulent representation by patients in their lives and their behavior.

33 I believe that the privacy issue can be a double edge sword. On one hand there is no real face-to-face contact in the chat context, so how can Dr. Lee assure that clients are alone at their computers and or are truly taking the group seriously? In addition, I would be concerned about social boundary issues if the chat group members go off on their own to contact each other, which may not be psychologically healthy. If there were an emergency, how would Dr. Lee manage a possible referral to an ER or local inpatient unit? I believe that face-to-face is extremely important when working with this type of high-risk population. I believe it as a higher likelihood of solidifying the working relationship.

34 I use Skype for clinical supervision and case consultation I do not use it for therapy. To do clinical [activities] I would only be comfortable with a secure network such as dedicated [undo] conference [] by IT department familiar with the issue. I, we use this from the ECC to Psychiatric ECC to help evaluate patients. Insurance would not pay for it. Unable to maintain control of the environment on the other end. Unable to assess subtle signs/symptoms, limited use with children, SPMI, Autism, etc. Danger of massive confidentiality failure etc.

35 Non [] therapy via Skype is inexcusable unless the patient has no other access to treatment, which is me. Patients are always better off with in person treatment.

36 Confidentiality

37 Confidentiality, security/protection of participants.

38 Distance that may increase disconnect need for increased assurance of confidentiality.

39 He may become more accessible then he would want to be. He might have more emergency situations that could be harder to handle. He might open himself up to more litigation. He might negative criticism from others in the field who don't believe in using technology in that manor. He might not be able to control what happens with the digital data; it could be taped and shared with others. Less control overall.

40 No accountability in monitoring. Decrease in use of nonverbal/pt presentation

41 Not accessing people in person - could miss things, including danger to self or others. Legal risk. Interstate practiced - is Dr. Licensed in all states where practicing? Client could express risk on like when Dr. not available, without backup.

42 Doesn't know if those on chat group are who they say they are. Cannot determine discrepancy between written chat and live person. No clear information on where people are incase of emergency. Taking clinical responsibility for clients at great distances. Not licensed in the states where clients live. Possibly more appropriate level of treatment available near where client lives/works.

43 Risk of violation of confidentiality. Don't get to get the information from facial expressions or other behaviors.

44 Maybe issues with confidentiality. I'm not sure how well you can limit other coming onto your Skype site. There may be some other issues of preferences if some group members are getting [indiv] sessions and other are not and know it because of what people say in group.

45 Confidentiality protection from potential misuse/abuse of the chat group fro personal/organizational purposes.

46 It invites therapy by email - not exactly the talking cure.

47 Not providing a standard of care that is necessary for actual change of behavior.

48 Crises management will be difficult without involving local authorities.

49 Inability to follow up to sever distress or threats of harm to self or others. Potential loss of confidentiality.

50 Not getting full [] of what people are saying. Not able to formulate and have responses in subtle ways, using the transference.

END OF INTERNET

51 It blurs the line between therapist and friend. Can clients contact him via facebook? If so, how does he respond? Of course there are confidentiality breaches especially if clients are writing testimonials with their name attached. The clients may not realize who has access to this information. It also may make him appear less professional. I personally wouldn't use a

therapist that has a facebook fan page.

52 Disclosure of personal information by clients. Someone who is unhappy with her services might write a negative comment.

53 The issue of having clients/former clients providing testimonials poses some ethical questions. Our ethics code makes it quite clear that we can't solicit testimonials from clients. The testimonials in this example sound as though they are unsolicited. There are many websites now where you can "rate" your Dr. - the potential ethical question raised in this example is can you yourself [empower/provide] a webpage where other who have worked with you can post testimonials. I wouldn't be comfortable with that.

54 Primary risks involve issues of confidentiality, enhanced liability, possibility of inadvertently into an advisory role with people who ask questions and seek advice of clinical nature.

55 Hopefully the personal information of the therapist and family is not on the facebook wall. There is a slippery slope of this becoming a [collusion of therapist, carrying for or needy clients]. Delusions of connection to the therapist.

56 I see a BIG red flag re: The fan page/testimonials with regards to issues of professional boundaries. Confidentiality (even though the clients/former clients have agree to the public nature of the postings). Professional setting-up "competition" among clients for the best testimonials. Being seen as "playing favorite" among clients. Ethical violation.

57 Dr. Lee runs the risk of effecting the therapeutic alliance with is patients in a negative way. By having a "fan page" he is facilitating the breakdown of boundaries that protect the therapeutic process and facilitate it. Clients may act out inner conflicts and transferences without addressing then where they belong, within the therapeutic relationship. Boundaries of confidentiality may be broken, when clients identify themselves online, and reveal aspect of their [] and treatment. Dr. lee also runs the risk of having a dual relationship with patients that is exploitive of patient's vulnerabilities, as they are both his patient, and his public relations aids.

58 Ethical problems with "advertising" - Not unbiased as would be in the case of clients posting a review at an unaffiliated website. Pt's may unwillingly post indentifying info, or otherwise compromise their own confidentiality. May have access to information that is "inappropriate." e.g.: Dr. Lee's personal info, or notes posted from "friends" that is of an inappropriate nature). May not control the flow of info quickly enough. Helps foster a sense of "dual relationship" (over-familiarity).

59 Making public statements about himself and allowing others to comment publicly will add unnecessary complexities and possible interferences to therapeutic process for clients who read [].

60 Invasion of privacy.

61 Confidentiality.

62 Issues of social boundaries/professional boundaries. Time constraints - "rejection" Feelings by clients if response time is too long.

63 The fan page is worrisome as it open up to possibility of misinformation, professional, personal, and or support-group type info which may be very idiosyncratic to specific clients. Also, although a person may knowingly enter information, their sense of privacy and confidentiality is compromised.

- 64 Internet abuse - false statements decreased credibility.
- 65 Can be viewed as unprofessional and potentially unethical in crossing boundaries and dual relationship. Other professionals may question his judgment in doing this. They may not return to him.
- 66 Confidentiality. Possible "dual relationship" issues.
- 67 Mainly confidentiality seems to be a major risk.
- 68 Loss of confidentiality. Introduction of patient-to-patient communication - unmonitored.
- 69 Boundary confusion: clients are considered "friends" which could imply many things. No face to face contact, so Dr. Lee must assess comments, reactions, based on limited info. (Verbal postings, photos). Clients may expect instant feedback when that is not possible. How will Dr. Lee respond to SI or HI postings?
- 70 See above; Confidentiality, the notion of advertising /testimonials, the concern that her info-websites he provides are not appropriate.
- 71 I have reservations about the facebook, not because of the advertising part, but because of the client testimonial part. I would be concerned about clients revealing information this is perhaps best left unsaid.
- 72 Numerous ethical principles, least of which = confidentiality.
- 73 He is presenting himself as an advisor, teacher, a coach, and not setting up relationships with clients that will, in my way of thinking and working be therapeutic.

END OF FACEBOOK

- 74 No control/awareness of specific impact of what the client is experiencing emotionally/cognitively as he/she responds to the avatars.
- 75 Would wonder how accurate the assessment process is. What if dx is wrong? What if pt decompensate? Do you have emergency people/contact for patient? Might promote isolation from "real" world or escape to virtual world, rather than a healing and reintegration.
- 76 I doubt if Dr. Lee can properly assess the clients mental /emotional status and needs. Dr. Lee would probably have trouble facilitating emergency intervention if needed, due to distance, not knowing the clients true identity, etc. I think the healing that could take place for the client might be limited, due to client and therapist never meeting in person.
- 77 The lack of a real relationship, in person meeting - how to monitor clients response.
- 78 No ability to see patient in person. Or progress.
- 79 Social isolation for the client. Decreased interpersonal skills.
- 80 I wouldn't call it "treatment." It's more like writing a book, or like AA, unsupervised? I'd need to know how Dr. Lee monitors and intervenes/communicates with people participating in this "exercise."
- 81 No [] or in person assessment of clinical severity, risk to self and others, treatment benefits, a [host] risks.
- 82 Don't know.
- 83 Increased risk for dangerous behavior in reaction to online advice with unawareness. Without in person intervention unable to identify nonverbal behavior - important part of therapy. Easier to terminate prematurely for client. May be a superficial relationship rather than authentic. (Person can lie about situation easier). Lacks the depth and observation from in person contact.

84 Critical relevant clinical information can be missed or omitted. Malingering patient could be overly involved in an anonymous form of treatment. People could abuse the use of this system and trauma survivors in true need of treatment.

85 Re-enactment may revive and exacerbate the problem with increased symptoms, anxiety, etc. Also a sufficient trusting relationship may not be possible in the above, especially since pt and therapist have never met.

86 Transfer from virtual to real world may be very difficult for most. Ethical issues. Religious issues.

87 Avoidance is the mechanism used to reduce anxiety and this method reinforces that method.

88 Therefore, the greatest risk is that there is little benefit. The ethical risks are the lack of personal contact in which Dr. Lee can evaluate levels of SI and other life threatening factors, such as depression, anxiety, dissociation, psychosis or even health factors such as eating, sleeping.

89 No "real relationship." The cornerstone of effective treatment. Cannot tell if anything communicated is truthful.

90 What of certain pathologies, it should be used only after a thorough assessment of the patient /client in the hands of the wrong person, it could head to further serious problems.

91 The opposite of my second point above. That I cannot imagine confidentiality working clinically with someone I have never met personally and evaluated directly - this does not meet (for me) any reasonable standard of care (and at a more basic level I do believe this work is based in a relationship experience and what Dr. Lee is doing is far from that).

92 Too many to list, but just to name a few: Lack of confidentiality. No non-verbal communications. No means of determining who is using avatars. Offers defensive clients a means to avoid therapy etc.

93 It is not good to let clients have to imagine things about his/her psychologist.

END OF SECOND LIFE

94 INTER May not get as much nonverbal info about patient. E.g. odor of ETOH, or other substances, better visual clarity difficult to interview if crisis and patient not cooperative with you plan.

95 FACE Testimonials - only those clients with experience with service. Client might be trying to please therapist. Links - may be endorsing something that maybe not to helpful. Potential clients my think resources are enough.

96 INTER Missing information (body language cues, etc) that would clue him in about potentially dangerous situations. This is somewhat mitigated with face to face chat using Skype, but still a factor. Also, some of the benefits of group therapy would be lessened (I would think) by doing Skype/chat. It might be harder to run the group and therefore less effective.

97 SECOND The client may not be who he/she says they are. Without seeing the actual client, Dr. Lee will not have access to observations of affect and behavior. This could be serious or even catastrophic. Trauma treatment has substantial risk that a therapist must monitor - such monitoring is impossible through avatars, as it would depend on the client to be aware of their affect regulation, the very function impacted by trauma.

98 SMART Breach of confidentiality - loose her phone, phone accessible to others.

Communication with patients in this way may impact patients in unforeseen ways. Emails are

hard to infer meaning to patient. Patient may come to expect immediate accessibility to therapist. So the issue of SMART boundaries is critical. How does one respond to pt? What meaning is this for pt? Division between professional and person life. END OF PROFESSIONAL

99 START OF STUDENT lose of confidentiality.

100 Potential violation of client anonymity when their identities are accessed through Dr. Lee's page; client testimonials or external resources pages may offer misleading information that Dr. Lee is responsible for, in that his name provides authority backing these links / claims.

101 The adverse affect is that those individuals who become fans of the page are exposed and confidentiality is lost to a certain degree.

102 Loss of confidentiality.

103 On the negative side, there is a significant issue of confidentiality that I have not worked out for myself, so have instead stopped my Facebook page. One could say that patients have a right to reveal 104 to the world that they are patients of a psychologist or psychiatrist, but perhaps the patient is not in the proper mental state to make that decision - The doctor, then, may be placing his or her patients at risk by providing a public venue in which a patient can reveal private information.

105 Privacy is a big risk. Also, I fear that if an overwhelming number of clients did call, then does Dr. Lee have the resources to accommodate, and the resources to refer clients who need help in an area other than his own.

106 Confidentiality and probably some people would get concerned that their information would become public. Also, it would not look much professional. If I were a client, I would not trust it.

107 The "testimonials" could be very problematic as sensitive, confidential information is being displayed for the public. This could result in discomfort and responses that result in emotional pain.

108 Some people do not use this social media, either out of a lack of technical savvy, or a lack of adequate resource to do so, or they simply do not or will not engage Facebook for any variety of reasons, not the least of which it shares too much personal information for a start.

109 Major issues with confidentiality, although clients are voluntarily becoming members of this page, however, given that they are clients, they may not fully understand the risk of exposing themselves due to vulnerabilities. I have an issue with a licensed clinician advertising on a social networking site, it seems tacky and nonprofessional, more like a scheme to make money versus actually help people, thus I am questioning Dr. Lee's ethical standards. END OF FACEBOOK

110 It is possible that Dr. Lee is not licensed to practice in states in which his clients reside.

-Also, there may be risks to client confidentiality; Skype may not have the appropriate security measures in place.

111 Confidentiality - need a very secure server on both ends of communication, safety concerns for depressed and suicidal clients

112 Because the internet connection is not secure, Dr. Lee runs the risk of a breach of confidentiality suing both Skype and chat rooms.

113 I have not conducted a review of the literature in this area but anecdotally, I would be concerned that in some instances there could be a problem with confidentiality especially if

more than one client was involved, at multiple locations... say at different IP addresses, hacking could be an issue. Another area of concern is being able to validate that person on the other end is the person they say they are. I would also not be certain that there was no one else in the environment with the person off screen. These concerns are I believe equally important in the chat or Skype environment. With enough money and the proper programming these problems could be solved I suppose, i.e. an encrypted and hashed video program but then cost might become an issue and really nothing that goes on line is really 100% secure 100% of the time. I am also not sure how the use of technology in this way will affect the therapeutic relationship i.e. transparency, rapport, attendance, and yet I have heard favorable things about counseling being conducted inside Second Life. I am cautious about using technology in this way but I think it is possible that there could be great benefits from it.

114 Well, this seems like a pretty terrible idea for certain populations of clients (Anxiety and Depressive spectrum) as it reinforces the notion that it is okay for them to not leave their homes. Similarly, interactions through technology such as second life can never adequately simulate all of the conditions and factors present during in-person therapy (e.g., face to face contact, maintaining an in-person relationship/connection during a difficult conversation, making small talk/interacting with support staff, etc.).

115 Without meeting face to face gauging the client's overall affect is inferior at best. See above.

116 Dr. Lee cannot be sure who he is speaking with. If at any time the client becomes a risk to himself/herself or someone else, Dr. Lee will probably not know how to warn others and guarantee everyone's safety, including the client.

117 To me, the real risk is seen in the effectiveness of treatment. It could be argued that, although possibly beneficial, Second Life as a treatment practice is noticeably limited in its ability to bring about meaningful change.

118 More difficult to manage an acutely suicidal/homicidal client; possible loss of the human element of in-person interactions, which might hinder rapport.

119 With no direct contact, there is a possibility of false representation. If a crisis were to arise, he would not be able to directly intervene. There is added risk of protecting confidential information with a digital trail. There is also a loss of nonverbal communication.

120 I would be concerned about the security of the personal information being disclosed by the client. Specifically, I would want further information about how Dr. Lee is maintaining HIPAA compliance in using the internet to provide therapy.

121 Might not work for all disorders, such as social anxiety.

Using virtual reality makes it harder to develop a therapeutic alliance. It might also be more difficult to monitor client's state of mind and identify those that are at high risk of hurting themselves. It will be difficult for the therapist to take action and protect the client in such eventuality

122 The layer of anonymity mentioned above dramatically increases the risk of dishonest persons posing as clients. A wealth of non-verbal information is unavailable to the therapist. Legal/ethical liability issues. END OF SECOND LIFE

123 Violation of confidentiality, she could send it to the wrong place where it's not supposed to go, also could lose some important information if the electronic stuff doesn't work right

124 Confidentiality should he lose his phone

125 This sounds very dangerous because I'm not sure if her phone is secure or password protected. This is clearly a violation of HIPAA. He/she is putting clients' confidentiality and privacy at risk.

126 There is a risk that the information she sends using this technology will become available to others by computer hackers or crossed airwave signals.

127 Use of technology in this way poses a huge threat to confidentiality. Someone could easily access client charts other than Dr. Lee.

128 By converting to a purely electronic format, it becomes very easy to access or intercept confidential patient/client information. Particularly with apps that allow phones to exchange information by simply being in proximity of one another. END OF SMARTPHONE

Appendix C
Curriculum Vitae

Robert Adam Dickey
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EDUCATION

Doctoral Candidate 8/2007 to present
George Fox University Newberg, OR.
Graduate Department of Clinical Psychology: APA Accredited

Masters of Arts, Psychology 8/2007 to 11/2009
George Fox University Newberg, OR.
Graduate Department of Clinical Psychology: APA Accredited

Bachelor of Science, Psychology 8/2003 to 4/2007
George Fox University Newberg, OR.
Honors on entrance scholar
Graduated magna cum laude

HONORS AND AWARDS

Psychology Department Faculty Award 4/2007
George Fox University, Newberg OR.
Awarded the Department Honor Student award by the George Fox University Undergraduate Psychology faculty.

Induction into Psi Chi, the National Honor Society in Psychology 3/2005
George Fox University, Newberg OR.
President 2006-2007
Vice President 2005-2006

Honors on Entrance Scholarship 8/2003 to 4/2007
George Fox University, Newberg OR.
Recipient of yearly \$10,000 scholarship for level of high school GPA.

Received rank of Eagle Scout 8/2002
Boy Scouts of America
Senior Patrol Leader for 2 consecutive terms in 2001.
Active member since 1998.

SUPERVISED CLINICAL EXPERIENCE

Kaiser Permanente HMO (208 hours direct, 600 cumulative) 7/2010 to Present

Description: Multidisciplinary training model integrating mental health with medical health. Brief cognitive behavioral, solution-focused treatment with a Health Psychology focus.

Duties: Individual therapy consisting of 60 minute, 30 minute, and phone sessions, group therapy, and neuropsychological assessment.

Areas of specific training:

- Individual CBT, evidence-based therapeutic interventions.
- Training in psychopharmacology.
- Training in neuropsychological assessment.
- Management of large caseload.
- Cross discipline interaction with medical doctors

Supervisor: Dr. Catherine DeCampos, PsyD/CFNP

Contact information: (503) 361-2345

George Fox Behavioral Health Clinic (305 hours direct, 733 cumulative) 10/2009 to 8/2010

Description: Low income and uninsured community members' primary population of interest.

Brief cognitive behavioral, solution-focused model of care.

Duties: Individual therapy, group therapy, cognitive, emotional, and behavioral assessments.

Areas of specific training:

- Individual CBT, and solution focused therapeutic interventions.
- Bio/psych/social model of treatment and supervision.
- Pain management treatment.
- Family therapy.
- Integrated psychological assessment.
- Group treatment including:
 - Substance abuse training
 - Family skills building

Supervisor: Dr. Joel Gregor, PsyD.

Contact information: (503) 554-2368

Clark County Juvenile Court (378 hours direct, 819 hours cumulative) 8/2008 to 7/2009

Description: Working with juvenile male and female delinquents doing individual and group therapy.

Clients have a wide range of acute and minor mental and emotional dysfunction.

Duties: individual inpatient and outpatient therapy, group therapy, cognitive and emotional assessment.

Areas of specific training:

- WAIS-IV/WISC-IV assessment and report writing.
 - Rorschach administration and interpretation.
 - Personality assessment, and integrative assessment report writing. -Group
- Therapy.
- Suicide risk assessment.

Supervisors: Dr. Krause, PsyD, and Dr. Shen, PhD.
Contact information: (360) 397-2201

Pre-Practicum (11 hours of direct, 24 hours indirect) 1/2008 to 5/2008

George Fox University Graduate Department of Clinical Psychology Newberg, OR.
Duties: Practiced Rogerian Psychotherapy with two female college students

Supervisors: Mary Peterson, Ph.D.
Contact information: (503) 554-2763

GROUPS

Kids Skills Group 10/2010 to Present

Population: Children ages 7-13.

Description: Two five-week groups split by age. Group one is geared towards ages 7-10, group two for ages 11-13. Group focuses on teaching CBT coping techniques.

Effective Parenting Skills Group (12 hours, 8 sessions) 8/2009 to 12/2009

Population: Unspecified

Description: Skill building for parents with children of all age levels. Focused on behavioral interventions.

Why Try (90 hours, 40 sessions) 10/2008 to 7/2009

Population: Male adolescent juvenile offenders.

Description: Group focuses on confidence and esteem building, while exploring core beliefs and cognitive distortions.

Depression Recovery Program 9/2007 to 11/2007

Position: Facilitator

Description: Lead group discussion with participants of a weekly depression recovery program that focused on the bio/psycho/social aspects of depression in a medical setting.

UNDERGRADUATE SUPERVISED CLINICAL EXPERIENCE

Cares Northwest Abuse Response and Evaluation Services 1/2007 to 5/2007

Responsibilities include research, data collection, abuse intervention, and interaction with children who came to Cares for abuse assessment and evaluation.

Supervisor on location: Debby Kernan M.A.

Supervisor for school credit: Kristina Kays, PsyD.

TEACHING EXPERIENCE

Pre-Practicum Teaching Assistantship 8/2010 to Present

Graduate Department of Clinical Psychology, George Fox University.

Faculty: Dr. Mary Peterson, PhD

Duties: Provide group and individual peer supervision to 1st year graduate students as they master foundational clinical skills from a Rogerian therapeutic model. Grading, video evaluation, and class lectures are also required duties.

Advanced Counseling Clinical Facilitator 8/2009 to 12/2009

Undergraduate Psychology Department, George Fox University.

Faculty: Dr. Kristina Kays, PsyD

Duties: Facilitated counseling skills for undergraduate psychology and social work majors interested in the helping professions. Guided students in self and group reflection exercises. Provided feedback on developing therapeutic skills.

Teaching Assistant 1/2006 to 4/2006

Undergraduate Psychology Department, George Fox University.

Course: General Psychology

Faculty: Dr. Christopher Koch, PhD

Duties: assisted teaching an undergraduate Psychology course. Held study groups outside of class instruction, and prepared materials to facilitated learning through group discussion.

Guest Lectures

The Infant Brain 10/7/2010

Course: Child Development

Instructor: Dr. Sue O'Donnell, PhD

Description of material taught: Development of the brain from conception to birth.

Memory Lecture 10/7/2010

Course: General Psychology

Instructor: Dr. Sue O'Donnell, PhD

Description of material taught: Process of encoding, retrieving, and storing information in the brain.

Clinical Disorders in Adolescent Development 3/15/2010

Course: Adolescent Psychology

Instructor: Dr. Sue O'Donnell, PhD

Description of material taught: Disorders commonly diagnosed in childhood and adolescence.

Sensation and Perception 2 lecture series 2/2-4/2010

Course: General Psychology

Instructor: Diomaris Jurecska, MA.

Description of material taught: Sensation and perception related to psychology and the human experience of the world.

Brain Lecture 9/14/2009

Course: General Psychology

Instructor: Diomaris Jurecska, MA.

Description of material taught: Basic elements of the brain, historical and current trends in psychology related to cognitive development and assessment.

Juvenile Delinquency 2/20/2009

Course: Adolescent Psychology

Faculty: Dr. Sue O'Donnell, PhD.

Description of material taught: Educated undergraduate students about juvenile adolescent offenders.

Research in Developmental Psychology 1/15/2008

Course: Child and Adolescent Psychology

Faculty: Dr. Sue O'Donnell, PhD.

Description of material taught: Research designs commonly used in Developmental Psychology.

RESEARCH EXPERIENCE

Research Assistant Undergraduate Psychology Department 5/2005 to 4/2007

George Fox University under Christopher Koch Ph.D.

Duties: Author and co-author to multiple research presentations under the supervision of Christopher Koch Ph.D. Duties include data interpretation, verification and entry, and test administration.

Dissertation

Dickey, R.A. (dissertation in progress). Perceived Risks and Benefits of Emerging Technologies in Professional Psychology.

Research Presentations

McMinn, M., Vaniliauskas S., Dickey R., & Honeycutt R. (2009, August). Prayer and the Process of Forgiveness. Poster presentation at the *117th annual American Psychological Association convention*. Toronto, Canada.

Dickey, R.A., Chang, K., & Koch, C., (2007, May). Individual Differences and Recognizing Facial Emotions. Poster presented at the *87th Annual Western Psychological Association Convention*. Vancouver British Columbia, Canada.

Dickey, R. A., & Murray, A., Bogard, T., & Koch, C. (2006, April). The effects of caffeine and sleep on everyday mindfulness. Poster presented at the *86th Annual Western Psychological Association Convention*. Palm Springs, CA.

Dickey, R.A., Murray, A., (2004). Gender Differences in Mental and Physical Rotation Tasks. Completed December 2004. Presented to George Fox University faculty and students.

EXTENDED EDUCATION

“Cognitive Processing Therapy” CPTWeb training program In Progress
Medical University of South Carolina

“Best practices in Multi-cultural assessment” 10/27/2010
Eleanor Gil-Kashiwabara, PhD

“Primary Care Behavioral Health: Where Body, Mind (& Sprit) Meet” 10/6/2010
Neftali Serrano, PhD

“Current Guidelines For Working With Gay, Lesbian, and Bisexual Clients; 3/17/2010
The new APA practice guidelines”
Carol Carver, PhD.

“Outcomes Measure, Reimbursement, and the Future of Psychotherapy” 6/4/2010
Jeb Brown, PhD.

“The Wechsler Memory Scale-4th Edition: Overview and Use with the 6/4/2010
Advanced Clinical Solutions for the Wechsler Scales”
James A. Holdnack, PhD

“Integrative and Clinical Dimensions of Gratitude” 2/17/2010
Phil Watkins, PhD.

“Multi-cultural counseling: An alternative conceptualization” 9/23/2009
Carlos Taloyo, PhD.

“Rorschach Immersion Course” 7/13-17/2009
Faculty: Dr. Terrie Burda PsyD.
35 hour intensive introduction to the Rorschach assessment and Exner System.
Location: Massachusetts School of Professional Psychology, Boston MA.

“Treatment and teaching interventions for children with Autism” 4/8/2009
Gary Mesibov, PhD

“Primary Care Psychology” 12/17/2008
Julie Oyemaja, PsyD.

“Towards a Global Christian Psychology: Re-considering Culture and Context” 10/29/2008
J. Derek McNeil, PhD.

“Annual Northwest Assessment Conference: 5/2008
*WAIS-IV: An Overview and Assessment of ADHD
in Children, Teens and Adult.*”

“The psychology of forgiveness in clinical practice” 2/13/2008
Nathanial G Wade, PhD

RELATED EXPERIENCE

Student Council Member 9/2008 to present
Current Position: President, 2010 to present.
Past Positions: Vice President and Treasurer, 2009 to 2010, and Member at Large for 2008/2009 academic year.
Description: As an elected member, represent the student body by bring the view of students to the student council and faculty. As the Vice President responsible for the budget of the Student Council for the fiscal year.

Mentor Program 8/2008 to 5/2009

Position: Mentor to a first year graduate student

Description: Provide support and guidance as needed to a student entering the program.

Chehalem Youth and Family Services Newberg, OR. 7/2007 to 8/2007

Position: Relief staff

Description: Residential treatment facilities for Developmentally Disabled adolescent males and Level-5 juvenile males.

National Youth Leader Training Program 7/2002 to present

Position: Assistant Scout Master

Description: A Boy Scouts of America affiliated program with a goal to train youth to be better leaders for their home troops. Became a member of the staff in 2002, and in 2003 through 2005 was elected Senior Patrol Leader.

PROFESSIONAL AFFILIATIONS

Oregon Psychological Association, Student Affiliate 7/2002 to 2010

American Psychological Association, Student Affiliate 1/2008 to present