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The effect of therapist use of technology on the therapeutic alliance

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The Effect of Therapist Use of Technology on the Therapeutic Alliance

by

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Presented to the Faculty of the
Graduate Department of Clinical Psychology

George Fox University

in partial fulfillment

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The Effect of Therapist Use of Technology on The Therapeutic Alliance

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As a dissertation for the Psy.D. degree

Approval

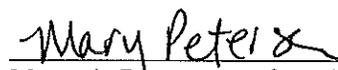
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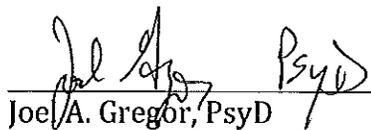
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Abstract

This study investigates therapist use of three different technologies as a mediator of therapeutic alliance in semi-structured initial interviews. The different technologies used were paper and pen, iPad, and a desktop computer. The Session Rating Scale Version 3.0 (SRS) was used to measure therapeutic alliance. Participants ($n = 118$) were recruited from a behavioral health service at a semi-rural primary care clinic and a community mental health clinic. A one-way ANOVA revealed no statistically significant difference between groups (primary care: $F(2, 57) = .361, p = .699$; community mental health: $F(2, 55) = 2.254, p = .126$), and the null hypothesis could not be rejected. Implications for practice and research are considered.

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And to God- thank you for making relationship possible, let alone beautiful. Thank you for the unending giving of yourself and your love in ways seen and unseen. May we all learn to love as you do.

Chapter 1

Introduction

The law of homeostasis suggests that we adapt in order to maintain a steady state. In the ever-changing market of healthcare, professional psychology has stayed true to this, demonstrating adaptability in the presence of ever-increasing diversity of theoretical orientations, new technical interventions, and the plurality of institutions, offices, and organizations through which mental health services are distributed. Psychologists have striven to remain relevant to the populations they serve through research and practice in order to maintain a constant commitment to providing the best available care.

The cultures that mental health professionals serve continue to evolve. In recent decades this involves the accelerating introduction of new technologies that promise to improve communication and help people to stay connected. These technologies have become a part of the daily life for many people, catching the attention of mental health professionals. Technology and mental health has become a new field of research in psychotherapy (Doherty, Coyle, & Matthews, 2010) and the American Psychological Association (APA) has even addressed the issues in an annual report by the Policy and Planning Board in 2009. The APA Policy and Planning Board aptly notes that:

Technology changes everything...[it] exerts a profound influence on human interaction, education, and psychological research and practice. It is critical to the current functioning of APA...At the same time...technological innovation has

been an integral aspect of human experience, interaction, education as well as psychological research and practice, across our lifetimes. And so, technology changes nothing. (APA Policy and Planning Board [APA Policy], 2009, p. 461)

Perhaps it is reasonable to paraphrase the Policy and Planning Board's position this way:

psychologists interact, educate, research, practice, and innovate even as we remain in a steady state. We change, and yet we stay steady.

Social networking websites (SNWs), for example, have been a significant source of this profound change, though there is nothing new about humans interacting. As SNWs have become popular they have drawn attention from researchers exploring how they affect human relationships (Goel, Mason, & Watts, 2010; Krämer & Winter, 2008; Mikami, Szvedo, Allen, Evans, & Hare, 2010). Taylor, McMinn, Bufford, and Chang (2010) noted the challenges of SNWs and related ethical questions in their survey of graduate students in psychology and psychologists. The results suggested that there is not yet a consensus about the need for APA guidelines on the topic, in part because APA ethical guidelines are written to apply to a wide variety of situations even if they do not specify particular technologies.

Psychotherapy relationships are changing as well, as ethical questions have surfaced surrounding information available online about therapists (Lehavot, Barnett, & Powers, 2010; Zur, Williams, Lehavot, & Knapp, 2009), clients (Kaslow, Patterson, & Gottlieb, 2011), and diagnoses (Sollman, Ranseen, & Berry, 2010). But even as the complexities of psychotherapy relationships change, ethical standards remain relatively constant in psychology.

Technology and Clinical Interventions

Numerous studies report the use of computer-based interventions for psychotherapy, many with encouraging results for how technology can be used to alleviate human suffering. For example, Khanna and Kendall (2010) recently studied differences in treatment outcomes for childhood anxiety between a computer-assisted intervention using Cognitive-Behavioral Therapy (CBT) interventions, individual CBT, and computer-assisted education, support and attention. Each treatment was administered over a 12-week period of time. Results showed that 81% of children receiving computer-assisted CBT no longer qualified for their pretreatment diagnoses, 70% of children who received individual CBT no longer qualified for their pretreatment diagnoses, and 19% of children in the computer-assisted education, support and attention condition no longer qualified for their pretreatment diagnoses. The first two conditions were significantly different than the third statistically.

Computerized CBT (CCBT) has also been tested against treatment as usual (TAU; biweekly consultation with physician in conjunction with antidepressants), and CCBT+TAU to understand which pretreatment patient factors influence the efficacy of each treatment for depression. Each condition was treated for nine consecutive weeks. The study suggested that optimistic patients benefit most from CCBT due to their approach-oriented coping style. Those who possess severe vulnerability characteristics will benefit most from CCBT+TAU (de Graaf, Hollon, & Huibers, 2010).

An Australian study (Klein et al., 2009) examining a therapist-assisted internet-based CBT intervention for Posttraumatic Stress Disorder(PTSD) showed a significant decrease in PTSD symptomology measured by clinician ratings and, in addition, a high credibility rating

(67.2% noted positive attitudes towards the credibility of the treatment). A second Australian study (Calear, Christensen, Mackinnon, Griffiths, & O’Kearney, 2009) also studied the effectiveness of an online CBT treatment (moodGYM) for anxiety and depression in youth. In a sample of 1,477 students from 32 different schools between the ages of 12 and 17, the researchers found that after five weeks of treatment with moodGYM participants from the experimental group showed a significant difference from the control group (waiting list, no treatment) in symptoms of anxiety. Interestingly, moodGYM only showed a significant difference between groups for depressive symptoms in males, not females, indicating that moodGYM might be best suited for male adolescents with symptoms of anxiety.

Computer-based therapy has also received mixed results in the literature on substance abuse and dependence. Murphy, Dennhardt, Skidmore, Martens, and McDevitt-Murphy (2010) found that that a counselor-administered motivational interviewing was preferred by college students who drank heavily in comparison to two computer-based motivational interventions. In addition, students who received the counselor-administered motivational interviewing had greater increase in motivation and discrepancy and, in comparison to a control group, demonstrated significant treatment effects. In another study, Bickel, Marsch, Buchhalter, & Badger (2008) assigned opioid dependent outpatient subjects to three different groups for treatment. The first two were based on the community reinforcement approach (CRA) and contingency management and were administered for 23 weeks through a therapist or were computer-assisted with the patient using a computer-based program. The third group was given standard Methadone-style counseling for the same 23-week period. The results, based on opioid and cocaine abstinence showed no significant difference in amount of weeks abstinent for the

therapist and computer based groups, but did show that the standard treatment provided less weeks of abstinence than the other two. The study did not show whether therapist based or computer based treatment was more effective, but it did demonstrate that CRA plus contingency management leads to greater abstinence than the standard treatment.

Technology and the First Interview

The first interview has been a topic of extensive investigation in recent decades (Bowman, Roberts & Giesen, 1978; Clemes & D'Andrea, 1965; Hilsenroth & Cromer, 2007; Janz, 1982; Lonborg, Daniels, Hammond, Houghton-Wenger, & Brace, 1991). Technology may be changing the way that we understand the first interview. Garb (2007), for example, studied the use of computer-administered interviews and rating scales. Garb noted the important aspects of interviewing such as comprehensiveness, reliability, validity, and bias, concluding that computer-administered interviews and measures should be used because of their ability to improve outcomes, accuracy, and their ability to bring awareness to a larger range of problems and diagnoses. He cautions, however, against false-positives in diagnoses with computer-administered interviews and recommends that clinical judgment be used in addition to the computer-administered interview. Additionally, Chapman, Uggerslev, and Webster (2003) compared applicant reactions to face-to-face interviews and video-conference or phone interviews. It was perceived by applicants that face-to-face interviews were "more fair and led to higher job acceptance intentions than were videoconference and phone interviews" (Chapman et al., p. 944). Although the interviews were for job seeking applicants, not mental health patients, perhaps this would indicate a need to study preferences for interviewers use of technology to assist interviewing in a face-to-face setting.

It is important to note that findings suggest use of technology prior to treatment can significantly improve outcome (Carey, Wade, & Wolfe, 2008). This is an important perspective to consider when considering computer-based interventions because, just like talk-therapy, one size does not fit all.

Clearly technology in therapy is worth paying attention to; after all it does change everything. And yet, like homeostasis, nothing changes at the same time (APA Policy, 2009). Technology brings about new questions of how technology impacts what we already know about professional psychology. The APA Policy and Planning Board notes the impact of technology on human relationships and interaction, and the therapeutic relationship, or alliance is subsumed under this category as a type of human interaction.

Technology and Alliance

Since the 1970s the psychotherapy outcome literature has demonstrated the efficacy of psychotherapy to bring psychological healing to people (Lambert & Ogles, 2004; Lambert, Shapiro, & Bergin, 1986; Smith, Glass, & Miller, 1980). In addition to robust evidence for overall effectiveness, various factors have been identified as contributing to therapeutic outcomes. Beutler et al. (2004) have listed therapist factors contributing to outcome in terms of Observable/Inferred Traits and States, listing therapeutic alliance as an inferred state that is regularly correlated with outcome, yet a causal relationship cannot be determined. The factor that is of concern to this study is the *therapeutic alliance* (also known as relationship, working alliance, alliance), defined as “the feelings and attitudes that therapist and client have toward one another, and the manner in which these are expressed” (Gelso & Carter, 1985, 1994, as cited in Norcross & Lambert, 2011, p. 5). While there are discrepancies in the way alliance is defined in

the literature (Bordin, 1980; Gaston, Goldfried, Greenberg, & Horvath, 1995; Horvath & Bedi, 2002; Horvath & Luborsky, 1993), this study will use Gelso and Carter's definition to align with the most current scientific research from the second APA Task Force on Evidence-Based Therapy Relationships. If psychologists are to introduce new technologies into the first interview, it will be important to determine their impact on alliance, as alliance is a robust indicator of treatment effectiveness.

The alliance has been repeatedly shown to be what Norcross and Wampold (2011) would describe as *demonstrably effective* in outcome research. In a recent meta-analysis of 190 studies from three different languages on alliance in individual psychotherapy, alliance has been shown to have an aggregate effect size of $r=.275$ which was significant ($p<.0001$) (Horvath, Del Re, Fluckiger, & Symonds, 2011). This is consistent with previous meta-analyses (Garske, & Davis, 2000; Horvath & Symonds, 1991; Martin, Horvath & Bedi, 2002). Similar results have been found on measuring alliance in child and adolescent psychotherapy (Shirk, Karver & Brown, 2011), cohesion in group therapy (Burlingame, McClendon, & Alonso, 2011), and alliance in couples and family therapy (Friedlander, Escudero, Heatherington, & Diamond, 2011).

There are many factors that affect the therapeutic alliance and, in its part, the outcome of psychotherapy. Research has demonstrated that a significant part of therapy outcome is determined by patient factors coming into therapy and the patient's view of the alliance (Orlinsky, Ronnestad, & Willutzki, 2004) warranting a significant amount of research of those factors. And as there are patient variables contributing to outcome, there are also therapist variables that also contribute to alliance and outcome. Horvath and Bedi (2002) researched

general factors contributing to alliance and found the following six therapist factors impacting alliance: interpersonal skills, communication-related skills, empathy, experience and training, negative therapist behaviors, and the intrapersonal dimension. While it is clear that these six factors impact alliance, the question that has not been asked is how therapist use of different technologies in session impacts the alliance.

This is not to suggest that research on alliance and technology does not exist at all. Rees and Stone (2005) had psychologists give alliance ratings while watching a psychotherapy session face-to-face or via videoconferencing. Those watching via videoconferencing rated alliance lower than those who watched face to face. Voicing similar concerns, Trull (2007) acknowledges Garb's (2007) contribution to the understanding of computer-assisted interviewing scales, rightly noting "the main disadvantage of such an administration is that it is not possible, at this point in time, to observe and code body language" (Trull, 2007, p. 1). Another question left to be answered is, how does a therapist's use of computer-assisted interviewing in the initial interview impact the therapeutic alliance?

Norcross and Wampold (2011) recommend that "researchers are encouraged to examine the specific mediators and moderators of the links between the relationship elements and treatment outcome" (p. 99). Because the therapeutic alliance has been shown to impact outcome, because technology has increasingly become a part of people's daily lives and has been introduced into professional psychology, and based off of the aforementioned recommendation, this current study will examine the impact of therapist's use of technology on the therapeutic alliance.

Clinicians may wonder how using technology will impact their relationships with their clients. The aim of this study is to understand the impact, if any, of using technology as an information-gathering tool on alliance. Data was collected in two separate studies at two different therapy settings, a primary care clinic and a community mental health clinic, through gathering alliance ratings from therapists using three different modes of information gathering technology: paper and pen, an Apple iPad, and traditional computer. The alliance ratings between the three groups in will be compared. It is important to understand the impact, if any, of therapist use of technology on working alliance. The presence or absence of statistically significant differences may function as a guide to therapists in choosing how to conduct their practice. No difference in alliance ratings may free therapists to choose various technologies to improve efficiency in their clinical practice without having to be overly concerned that it will negatively impact the development of alliance. This result would have widespread implications for practice, ethics, training and diversity. It is hypothesized for each study that there will be no statistically significant differences in alliance ratings between the three groups. If no significant differences are found, it may be inferred that therapists can consider the use of technology to aid psychotherapy without detracting or adding to the working alliance.

Chapter 2

Methods

Study 1

Participants. The participants of this study were patients of Providence Medical Group who were beginning to receive behavioral health services at the Providence Clinics in Newberg and Sherwood, Oregon. There were five Behavioral Health Consultants (BHC; two in Newberg, three in Sherwood) who used each of the three technologies in the initial intake session.

Participants age 18 and older were interviewed regardless all other variables. BHCs were trained in a group setting to use the specific technologies prior to the beginning of the study. The training taught BHCs how to use each piece of technology to record notes from the interview. Competency in technological use was verbally affirmed by each BHC.

Intervention. The three methods used for note taking during the initial assessment session were pen and paper, the Apple iPad, and the Citrix computer system at Providence Medical Group. The Apple iPad is tablet computer using a touch-screen to interface with the user. BHCs used a stylus to write on the iPad using an application (popularly known as an “app”) called UPAD. The Citrix computer system is a desktop computer system housed in each exam room at Providence Medical Group. All three methods followed the same semi-structured assessment (Appendix A) in which the BHC asked a series of questions related to referral problem, history of problem, and so forth. The BHC recorded information from the assessment in session while holding the paper, iPad in his or her lap or typing into the computer. The BHC was instructed to face the patient and be seated approximately 4 feet apart. The BHC was

instructed to speak in a calm, empathic way to each client and maintain eye contact except when recording information.

Instruments. Alliance was measured post-assessment for each patient. The alliance measure was the Session Rating Scale V3.0 (Duncan et al., 2003; Appendix B). The Session Rating Scale (SRS) is “a four-item analogue visual instrument” (Duncan et al. 2003, p. 5). All four items are measured on a spectrum going from left to right. When given the SRS the patient is instructed to make a vertical hash mark with a writing utensil in each of the four items. The location of the hash mark is along the spectrum for each item, depending on how the patient perceives each item to be for that session. For example, if the patient felt that the therapist’s approach was exactly right, he or she would make a hash mark on the far right side of the “Approach or Method” item.

Each item of the SRS is 10centimeters in length. To score the SRS, measure the distance in centimeters (to the nearest millimeter) between the patient’s hash mark and the left pole of the item. Once each item is scored, the four scores are added together to calculate the total score (out of a possible 40). Efforts to determine the reliability and validity of the SRS have demonstrated positive results that suggest the SRS is a reliable and valid measure of alliance. Reliability and validity results were compared to the Helping Alliance Questionnaire II (HAQ-II; Luborsky et al., 1996). Results from the research show that the internal consistency, determined by Cronbach’s coefficient alpha, was .88 (compare to HAQ-II at .90). Test-retest reliability, calculated using Pearson’s r was .64 (HAQ-II = .63). When concurrent validity of the SRS was tested in relation to the HAQ-II the researchers found a .48 ($p < .01$) correlation, suggesting concurrent validity of the SRS. The SRS also found a correlation of .29 ($p < .01$) between

outcome measured at the end of therapy and the second and third session SRS. This finding suggests that the SRS functions in a similar way to other alliance measures (Duncan et al., 2003).

Procedure. Patients were assigned to one of the three conditions prior to the initial interview and any BHC contact. The methods used for the intake interviews (iPad, computer, pen-and-paper) rotated weekly until the sample size was filled to ensure random assignment. The first week patients undergoing their initial interview were assigned to paper and pen, the second week to the iPad, the third to the computer system, the fourth to paper and pen, the fifth to an iPad, and so on. After the semi-structured interview was conducted alliance was assessed through the SRS.

In the first condition, the BHC used a printed paper form of the semi-structured interview on which the BHC recorded information to be entered into the patient's medical record. In the second condition the BHC recorded information from the interview on the iPad. In the third condition, the therapist accessed the semi-structured interview form in the electronic medical record (EMR) to record information through the desktop computer located in the exam room.

Each SRS form was marked for which of the three conditions it was given under. SRS results were calculated and the SRS scores for the three groups were compared. BHCs were interviewed after data was collected to assess BHC preferences for each condition.

Study 2

The participants of this study were clients of a rural community mental clinic who began to receive behavioral health services at the George Fox Behavioral Health Clinic in Newberg, OR, a low-cost community mental health clinic. The conditions rotated weekly between the clinics until 58 responses were collected (19 paper, 20 iPad, 19 laptop). Participants age 18 and

older were interviewed regardless all other variables using the semi-structured interview developed by the clinic (Appendix C). Therapists were trained in the same fashion as BHC in Study 1 while taking into account the differences between a medical setting and a community mental health setting.

As with study 1, the three methods for note taking during the initial assessment session were pen and paper, the Apple iPad, and therapists used a laptop computer. Alliance was measured post-assessment for each patient. The alliance measure used was the Session Rating Scale V3.0 (Duncan et al., 2003). Client assignment to the three conditions and all other procedures was identical to those used in Study 1.

Chapter 3

Results

Study 1

SRS scores ranged from 28.4-40.0, ($m=37.0$, $sd=3.0$). Participant ages ranged from 21-88 ($m=50.1$, $sd = 16.3$). All participants with a recorded ethnicity were of European-American descent, 38.3% were male, 58.3% were female, 3.3% were unknown or other. The most common Axis I diagnoses were mood or anxiety related disorders (25% each), with the least frequent diagnoses being Somatoform and Sleep Disorders (1.7% each). A one-way ANOVA was used to test for alliance differences among the three technologies used to record data during intake interviews. The alliance ratings did not differ significantly across the three conditions, $F(2, 57) = .36$, $p = .70$.

Table 1

Primary Care Clinic Results

Condition	<i>n</i>	Mean	<i>SD</i>
Pen and Paper	20	36.9	3.0
iPad	20	37.4	3.1
Computer	20	37.0	3.1

No significant age-SRS correlations were observed overall ($r = -.14$), for the Pen and Paper condition ($r = .02$) or the iPad condition ($r = -.09$). The correlation between age and SRS

for those in the Computer condition was not significant, though it warrants further research ($r = -.37, p = .11$).

Study 2

SRS scores ranged from 18.6-40 ($m=36.05, sd= 5.04$). Participant ages ranged from 18-67 ($m = 42.1, sd = 13.2$). Participants were 75% European-American, 6.7% Hispanic, 5% Native-American, and 1.7% were Other; 26.7% were male, 66.7% were female, 6.7% were Unknown or Other. The most common Axis I diagnoses were V-codes (21.7%) followed by mood disorders (20%) and anxiety related disorders (13.3% each), with the least frequent diagnoses recorded being Psychotic and Adjustment Disorders (1.7% each). A one-way ANOVA was used to test for alliance differences among the three technologies used to record data during intake interviews. The alliance ratings did not differ significantly across the three conditions, $F(2, 55) = 2.254, p = .126$.

Table 2

Behavioral Health Clinic Results

Condition	<i>n</i>	Mean	<i>SD</i>
Pen and Paper	19	34.2	6.7
iPad	20	36.5	4.2
Computer	19	37.4	3.3

No significant age-SRS correlations were observed overall ($r = -.09$), for the Pen and Paper condition ($r = -.22$), the iPad condition ($r = .17$), or the Computer condition ($r = -.12$).

BHC/Therapist Interview

The BHCs and therapists were interviewed individually after data was collected rate their preferred condition to use while interviewing patients ($n=5$). Four of the five BHCs rated computers as their preferred method, one rated paper and pen as the preferred method. The iPad was regarded as the least preferred amongst the entire sample. All four that rated the computer as most preferred cited the efficiency of having data entered directly into their respective charting systems as the reason. All four also reported workflow difficulties with the iPad, citing the difficulty of writing quickly with a stylus.

Chapter 4

Discussion

The aim of this study is to understand the impact, if any, of using technology as an information-gathering tool on alliance as technology in psychotherapy has become a new field of research (Doherty et al., 2010) and the APA has sought to understand its use (APA Policy, 2009). BHCs and therapists used paper and pen, iPads and computers to record information during intake interviews and assessed for therapeutic alliance. As hypothesized no difference was observed in alliance ratings between the conditions.

Practice Implications

Though a null hypothesis can never be proven—only disproven—it is noteworthy that even an exceptionally liberal alpha of .25 would still have failed to produce any differences between the three conditions. Pending further research, it can be reasonably assumed that therapists can experience freedom to choose to use technology in intake sessions as an aid to their services without it harming therapeutic alliance. Furthermore, a similar result was observed in 20-minute behavioral health consultation intake session at the integrated primary care setting as the 50-minute intake session at the community mental health clinic. This suggests that not only can therapists experience freedom to choose technology, they can choose to use it across a variety of clinical settings.

Therapist use of technology should be distinguished from computerized treatment. As reported in the introduction, there are many computer programs being developed to treat anxiety

and mood disorders with varying results. This is different than therapist use of technology, as the role of the therapist is minimized in computer-based treatment. This study indicates that therapists, in their normal course of practice, are able to use their preferred technology to record information during intakes and therapy sessions.

Because technology use by the therapist does not appear to detract from therapeutic alliance, it may be beneficial for more software applications to be developed specifically for therapists to use. Division 38 of APA recently released a helpful list of current mental health applications (apps) for use with Apple iPad/iPhone devices (Blunt, 2011). A brief review of the list showed that the vast majority of apps included in the list are for client use (60), while only a small portion was developed for clinician use (16), with the majority of those being reference apps, not for use *in practice* with clients. Apart from the market driven benefits of focusing on apps for clients (there are far more clients than clinicians), developing software for clinicians may ultimately benefit those who receive care, as technology can provide increased efficiency in the organizing a practice, managing records, storing data, scoring assessments, and so on, thus reducing the administrative workload on clinicians and freeing them to focus on their clinical work. As we discovered in interviewing BHCs and therapists for this study, efficient technological methods that reduce workload are preferred to non-efficient ways of using technology. Surprisingly, when this qualitative data is compared to the results from this study, it appears that BHC/therapist preference for method does not impact the alliance as rated by the patient. The data only suggests that technology impacts the therapist preference and the therapist workload.

One example of efficient technology for therapists is an iPhone/iPad app developed by Wiarda and McMinn (2012) called the Therapy Outcome Management System (T.O.M.S.). The T.O.M.S. allows clinicians to administer the Outcome Rating Scale (ORS; Bringham, Watson, Miller, & Duncan, 2005) and SRS on the iPad/iPhone and instantly provide feedback regarding outcome and alliance each session, including the initial interview. Though the ORS and SRS are widely considered to be the most brief outcome and alliance measures, an electronic version of them makes them even more brief, guarantees accuracy of scoring, and makes it simple for clinicians to administer these measures. Garb (2007) also notes this advantage of efficiency and accuracy for computer-administered interviews while also acknowledging the difficulty of the clinician not being present to observe body language during the initial assessment. While the advantages and disadvantages are many, it is clear that therapist use of technology *during* the face-to-face interview and following appointments may be beneficial.

Ethical Implications

There are ethical implications to this research as well. In the ever-changing market of technology, therapists have increasingly complex ethical issues, especially when considering how to legally and ethically protect Patient Health Information (PHI) according to the Health Insurance Portability and Accountability Act (HIPAA) and Health Information Technology for Economic and Clinical Health (HITECH). Technologies that therapists use ought to enable therapists to comply with these acts without compromising ethical integrity. Additionally, it may be beneficial for providers to include information about their use of technology in their informed consent. This would anticipate and address questions of data security about extremely sensitive PHI from those who receive services. This, of course, is the standard of practice no matter what

the method of storing PHI, though it may need specific attention as therapists choose to use new and different technologies. Because of the ever-changing technological and ethical landscape, software developers and clinicians should partner together to navigate the technological, ethical, and clinical dilemmas and opportunities that arise.

Training Implications

First and foremost, trainees ought to focus on developing as clinicians in their training so that they can supplement and support their practice with the use of technology, not the other way around. It is clear that psychotherapy works as is (Hubble, Duncan, Miller, & Wampold, 2010) and developing competency is the primary task of the trainee, not learning to use technology. Good treatment is the goal, not necessarily new technologies. However, new technologies can aid as additional means to the end of good treatment. Graduate programs in clinical and counseling psychology, counseling, marriage and family therapy, and other similar helping professions may benefit from integrating the use of technology into their training through supervision, coursework, research, and didactic training. Using technology as a norm to supplement training in these areas may continue to inspire new and better ways of practice as trainees gain competency in their own practice. Additionally, trainees may shape and guide the face of technology for clinical practice as they enter into the workforce as clinicians. Clinician-driven technologies provide considerable advantage over technologies not developed in partnership with clinicians because of the implicit utility involved. Clinicians will most likely produce technologies or ideas for technologies that are most relevant to their practice and useful.

Psychology trainees are not the only practitioners who could benefit from training. Licensed mental health professionals may benefit from CE courses on technological

opportunities available to them. Such courses may include overview of available apps, demonstrating their utility in practice, training professionals to use specific products and technology, and educating professionals about the ethical implications of the use of various technologies.

Diversity Implications

It is also possible to consider the use of technology as a diversity issue that clinicians ought to consider. Generational and socioeconomic status (SES) differences may impact the comfort level of clinicians and clients who have had limited exposure to technology or for those who are not well acclimated. SES information was not considered in data collection, but age was. These results suggest that age does not have a clear effect on alliance, depending on the technology used, though the negative correlation between computer use (the clinician's preference) and alliance ratings from patients warrants further investigation.

Consideration of patient characteristics is part of evidence based practice defined by the APA (APA Presidential Task Force on Evidence-Based Practice, 2006), and should be part of clinicians' deliberations when deciding to use technology and how to use it. Though patient characteristics are always significant, data from this study suggests that patient age does not significantly affect alliance ratings with computers or iPads used in this fashion.

Other factors, however, may impact alliance when technology is introduced. In training, this process may work in a similar fashion to multicultural training in other domains. Education, self-awareness, defining values, and awareness of others attitudes and beliefs will aid clinicians in deciding to use technology or not. This may require faculty of graduate departments,

clinicians, and policy makers to evaluate their own attitudes and beliefs and adjust them as needed.

Future Research

This study considered client ratings of alliance using a brief alliance measure. Future research may focus on qualitative aspects of client's experience of therapist use of technology. It may be that clients did not like the presence of the technology but appreciated the relationship, that clients preferred the technology, or that they did not notice the technology at all. Without qualitative data it would be impossible to know this. Also, conducting similar studies with different ways of measuring alliance may be helpful. Replicating the study in a fashion similar to Rees and Stone's study (2005) with third-party observers rating alliance while viewing a psychotherapy session may be helpful for this. Collecting this observational data will nuance the understanding of therapist use of technology and how it effects alliance with clients.

Luxton, McCann, Bush, Mishkind, and Reger (2011) reviewed the use of smartphones in behavioral health and discussed the use of smartphones in clinical practice. While the authors noted many helpful functions of apps and how they could be used in practice, there is no mention of outcomes mediated by these apps. Though many of the apps are modified versions of accepted interventions in evidence-based practice, we know that *how* the intervention is delivered is just as significant as the intervention itself (Eonta et al., 2011).

Apps to aid therapists in treatment are for just that—aiding treatment. Client characteristics must be considered when using apps and more research to understand how client characteristics interact with apps will be helpful. Focusing on outcomes related to app-assisted therapy will also be fruitful.

Limitations

One limitation was the inability to verify if BHCs and therapists fully carried out instructions for how to conduct the initial interviews. All received the same training and verbally affirmed competence with the technology, though this study did not verify this through observation of the actual interviews. Apart from controlling for level of training, BHC and therapist variables were not factored into data analysis in this study and not controlled for. Information about BHC and therapist attitudes about technology, familiarity with the technology, age, gender, and ethnicity would have been helpful to consider in the data collection. Participants were randomly assigned to conditions and therapists/BHCs to neutralize this effect as much as possible.

Diversity of age is another limitation. All participants in this study were adults, child and adolescent ratings of the alliance would also be helpful to provide a more comprehensive understanding of the impact of technology. Some participants of this study were alive before computers were invented; some children have no experience of life apart from iPhones and laptops.

The SRS is also primarily intended for clinical use, not research. It was used due to its ability to function as a brief alliance measure and robust psychometrics, especially when compared to other alliance measures typically used for research.

Conclusion

As the APA Policy and Planning Board wrote, “technology changes everything ... technology changes nothing” (2009, p. 461). Technology has opened new worlds that we could not have imagined only a few years ago, and if history is our guide then we can expect to

continue to expand the use of technology in life and the practice of professional psychology. It has forever changed our “experience, interaction, education, research and practice (APA Policy, 2009, p. 461). We can now report mood changes, screen for psychopathology, track outcomes, conduct therapy via videoconference, and share psychoeducational information in unprecedented ways. Yet these are practices that professional psychologists have been a part of in some form far before computers and iPads became a mainstay of culture, these technologies have merely transformed the way we practice. It was hypothesized the APA statement would ultimately hold true in this study, and the results confirmed as much. Therapist use of technology in this study did not have a statistically significant impact on alliance ratings. In short, we found no evidence that technology detracts from the relationship formed between therapists and their clients. This result opens the door for the implications discussed above and much fruitful research to continue the aim of our profession—serving the mental health needs of those who entrust themselves, their experiences, stories, and relationships to us.

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Appendix A

Semi-Structured Interview Format

Semi-Structured Interview Format

Referral problem/Chief Complaint

- 1.
- 2.

History of problem:

What helps/makes the problem better?

What doesn't help/makes the problem worse?

Family members' perception of problem?

Other current stressors:

General physical health:

Mental Status:

Presenting Symptoms (mood, thought, behavior, substance use):

Diagnostic impressions:

Recommendations to patient:

Follow-Up: PCP, BHC, Refer/follow-up with psychiatry, other:

Appendix B

Session Rating Scale (SRS V.3.0) (Modified for Print)

(Office Use Only)		
Name _____	Age (Yrs): _____	Ethnicity _____
ID# _____	Sex: M / F	<input type="checkbox"/> Paper <input type="checkbox"/> iPad <input type="checkbox"/> Computer
Session # ____	Date: _____	Axis I: _____

Please rate today's session by placing a mark on the line nearest to the description that best fits your experience.

Relationship

I did not feel heard, understood, and respected. I-----I I felt heard, understood, and respected.

Goals and Topics

We did *not* work on or talk about what I-----I We worked on and talked about what I

Approach or Method

The therapist's approach is not a good fit for me. I-----I The therapist's approach is a good fit

Overall

There was something missing in the session I-----I Overall, today's session was right for me.

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Appendix C

George Fox Behavioral Health Clinic Intake

(with blank spaces condensed)

George Fox Behavioral Health Clinic

INTAKE

Client Name:	Intake date:
Therapist:	DOB:
Session #:	Age:

REASON FOR REFERRAL:

1. _____
2. _____

HISTORY OF PROBLEM (Broad then narrow, don't follow every lead!)

Onset: Frequency: Duration: Intensity:

What helps/makes the problem better?

-

What doesn't help/makes the problem worse?

-

Family member's/friends involvement and ideas about the problem?

-

MEDICAL HISTORY:

Current medications and other current therapies?

-

Current medical diagnosis (i.e. diabetes, asthma, etc?)

-

OTHER:

Time asleep: Awake: Soundly?

Do any of the following contribute to your reason for seeking treatment? Severity? (0-3):

Recent loss	Acculturation	Recent move	Occupational stress
Financial stress	Medical problems	Sexual orientation	School problems
Other treatment programs?	Caregiver responsibilities	Legal issues	Crisis of faith

- Other?

Current or past substance abuse (substances, frequency, how did they stop using)?

-

CHECK FOR FUNCTIONAL IMPAIRMENT:

- Unemployed?
- Relationships? : Work Family Social
- Cognitive impairments? (TBI? MR/DD?):
- Disabilities? (vision, hearing, learning prob., other):

PRESENTATION:**Physical Exam: General/Constitutional**

Level of distress: mild, moderate anxious in pain

Nourishment: thin overweight obese well-nourished

Overall appearance: age appropriate apathetic poor hygiene

Mental Status/Neurological

LOC: alert & oriented X3 drowsy lethargic sedated

Orientation: impaired judgment confusion lethargy unresponsive

Memory impairment: mild moderate severe impaired STM

SYMPTOMS:

Depressive: depressed mood/anhedonia weight change sleep change psychomotor retardation/agitation worthlessness suicidal ideation hopelessness guilt low motivation poor concentration indecisiveness

Manic: pressured speech elevated/expansive mood irritable inflated self-esteem euphoric grandiosity decreased sleep flight of ideas racing thoughts distractibility increase in goal directed behavior risky behavior spending

PTSD: Traumatic experience intense fear helplessness reactivity to cues flashbacks hypervigilance avoidance of stimuli anhedonia sleeplessness restricted affect exaggerated startle response poor concentration > 1 mo

Panic-Agora: palpitations/pounding trembling/shaking chest pain SOB nausea dizzy/lightheaded de-personalization de-realization losing control/going crazy parasthesias (numbness, tingling) avoidance

GAD: > 6 mo, anxiety/worry restless keyed-up easily fatigued irritability muscle tension sleep problems

OCD: recurrent/persistent thoughts, impulses, images attempt to ignore/repress behavior reduces anxiety repetitive behaviors

Suicide risk (SAD PERSONS): **S**ex (male) **A**ge (25-34; 35-44; 65+) **D**epression **P**revious attempts **E**thanol abuse **R**ational thinking loss (psychotic for any reason) **S**ocial support lacking (or recent loss) **O**rganized plan (if lethal – shot gun vs. holding breath) **N**o spouse **S**ickness (chronic, debilitating, severe) muscle tension sleep problems

0-2 = little risk

3-4 = follow closely

5-6 = strongly consider hospitalization

7-10 = very high risk, hospitalize or commit

Would you like faith to be a part of your therapy experience? How so?

Other sx:

DSM DIAGNOSIS:

AXIS I:

AXIS II:

AXIS III:

AXIS IV:

AXIS V:

CLINICAL IMPRESSION/CONCEPTUALIZATION:

RECOMMENDATIONS TO PATIENT AND POSSIBLE GOALS:

HANDOUTS GIVEN TO PAITENT:

BHC

Clinical Supervisor

Appendix D
Curriculum Vitae

Nicholas R. Wiarda

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EDUCATION

- Present **Doctor of Psychology, Clinical Psychology**
Graduate Department of Clinical Psychology (APA Accredited)
George Fox University, Newberg, Oregon
Doctoral Dissertation, Final Defense Passed:The Effect of Therapist Use of
Technology on the Therapeutic Alliance
- 2011 **Master of Arts, Clinical Psychology**
Graduate School of Clinical Psychology (APA Accredited)
George Fox University, Newberg, Oregon
- 2007 **Bachelor of Arts, Religious Studies**
University of Dayton, Dayton, Ohio
Minors: Spanish and Entrepreneurship

SUPERVISED CLINICAL EXPERIENCE

- 2011- Present **Practicum II/Pre-Intern**
Providence Newberg Medical Group
Behavioral Health Consultant- Primary Care
Medical Staff Privileges
Rotations: Internal Medicine, Family Practice, Neurology, Assessment
(Psychiatry)
Supervisors: Mary A. Peterson, PhD, ABPP/CL, Dr. Marie-Christine Goodworth,
PhD
Population: Child, Adolescent, Adult and Geriatric Medical Patients
Description:
- Provide individual therapy and behavioral health consultation to children, adolescents, adults, geriatrics, couple and families within an integrated primary care setting.
 - Consult with physicians regarding diagnosis, treatment planning, and therapeutic strategies.
 - Conduct comprehensive psychological evaluations and brief screeners.
 - Provide long-term outpatient therapy for patients as needed.

- 2011-Present **Supplemental Practicum**

**Providence Newberg Medical Center
 Consultation Team Behavioral Health Intern
 Medical Staff Privileges**

Rotations: Emergency Department, Med-Surge, Intensive Care

Supervisors: Mary A. Peterson, PhD, ABPP/CL, William C. Buhrow, Jr., PsyD,
 Joel Gregor, PsyD

Description:

- Provide 24-hour on call physician consultation and patient assessment services in the Emergency Department, Medical Surgical Unit, and the Intensive Care Unit.
- Populations served are child, adolescent, adult and geriatric patients at risk for harm and high utilizing pain patients (HUPP)
- Conduct risk assessments to determine patient safety, risk of self-harm, and need for possible psychiatric hospitalization.

2010-2011

**Practicum I
 Health and Counseling Center, George Fox University
 Student Therapist**

Supervisors: William C. Buhrow, Jr., PsyD., Kristina Kays, PsyD.

Description:

- Complete thorough and efficient intakes with individuals in a university setting.
- Provide solution-focused individual psychotherapy for traditional and non-traditional college students with diagnoses including (but not limited to) Major Depressive Disorder, Posttraumatic Stress Disorder, Substance Abuse Disorders, Eating Disorders, Anxiety Disorders, Adjustment Disorders, and Personality Disorders.
- Receive weekly individual supervision and group didactic training.
- Therapy sessions were videotaped and reviewed with supervisors.

2010

**Supplemental Practicum
 Stenzel Clinical Services, Ltd.
 Student Intern**

Supervisors: Lauren Axton-Brereton, PsyD., Jennifer Stenzel, MA, LCPC

Description:

- Observed multiple therapists in private practice employ a variety of treatment modalities and theoretical orientations for children through adults with various diagnoses including (but not limited to) Borderline Personality Disorder, Anorexia Nervosa, Anxiety Disorders, Adjustment Disorders, Attention Deficit Hyperactive Disorder, and other Mood Disorders.
- Engaged in co-therapy with licensed clinicians.
- Received weekly individual and group supervision.

- Wrote progress notes for observed therapy sessions.
- Received training in marketing therapy services to primary care physicians and managing a private practice.

2010

Supplemental Practicum**International Student Process Group- George Fox University****Group Co-facilitator**

Supervisor: Winston Seegobin, Psy.D.

Description:

- Co-facilitator of weekly acculturation process group for international students with a focus on Asian students. Contributed to program development for the group and consultation with ESL and International student faculty.

2009-2010

Pre-Practicum**Student Therapist**

George Fox University

Supervisors: Mary A. Peterson, PhD, ABPP/CL and Rikki Mock, M.A.

Description:

- Provided outpatient individual client-centered psychotherapy services to volunteer undergraduate students.
- Conducted intake interviews, wrote treatment plans, and made diagnosis.
- Wrote professional reports, made case presentations.
- Consulted with supervisors and members of clinical team.
- All sessions were video-taped, reviewed extensively and discussed in individual and group supervision.

PROFESSIONAL EXPERIENCE

The Wiarda Group, LLC

Owner, Managing Member

Collaborators: Scott Miller, PhD; Mark R. McMinn, PhD, ABPP/CL

Products/Services: **Therapy Outcome Management System (TOMS)***Website:* www.thetomsapp.com

Description: Initiated and coordinated the design, development, piloting, and publishing of an App for use on Apple iPad, iPhone and iPod touch. The TOMS is used to measure, provide instant feedback, report outcomes and alliance, and provide evidence of therapeutic effectiveness in psychotherapy and behavioral health consultation. Measures used are the Outcome Rating Scale (ORS) and Session Rating Scale (SRS).

NATIONAL PRESENTATIONS

Wiarda, N.R., McMinn, M.R., Peterson, M.A., Gregor, J. (2012, August) *Therapist use of technology and its effects on therapeutic alliance in integrated behavioral health*. Poster to be presented at the annual meeting of the American Psychological Association, Orlando, FL.

Wiarda, N.R., McMinn, M.R. (2012, August) *The impact of electronic tracking on therapeutic outcome and alliance*. Poster to be presented at the annual meeting of the American Psychological Association, Orlando, FL.

Heyne, L.K., **Wiarda, N.R.** (2012, August) *Early and established pcp's appraisal of integrated behavioral health services*. Poster to be presented at the annual meeting of the American Psychological Association, Orlando, FL.

Irvine, M.J., **Wiarda, N.R.** (2012, August) *Referral follow up for chronic pain management in a rural ED: A consultation*. Poster to be presented at the annual meeting of the American Psychological Association, Orlando, FL.

McMinn, M.R., Vogel, M.J., Bufford, R.K., Gerdin, T.A., Goetsch, B., McKinley, M., Mitchell, J. K., Peterson, M.A., Seegobin, W., Taloyo, C., **Wiarda, N.R.** (2012, August) *Religious and spiritual diversity training in professional psychology*. Symposium to be presented at the annual meeting of the American Psychological Association, Orlando, FL.

CHAPTERS/BOOKS

McMinn, M. R., & **Wiarda, N.R.** (2012). Psychological and spiritual health: Upon reflection. Chapter update for *Psychology, theology, and spirituality in Christian counseling* (revised edition). Wheaton, IL: Tyndale House Publishers.

Peterson, M.A., **Wiarda, N.R.** (Ed.) (2011). *Integrated primary care treatment manual*. Unpublished manuscript.

RESEARCH EXPERIENCE

2011-Present **Program Evaluation Consultant:** Providence Newberg Medical Center

- Conducted evaluation of referral process and follow up for high utilizing pain patients (HUPP) and contributed to the development of a Coordinated Care Organization (CCO) to affect systemic improvement.

2010-Present **Doctoral Dissertation:** The effect of therapist use of technology on therapeutic alliance. George Fox University, Newberg, Oregon.

Committee Members: Mark R. McMinn, PhD, ABPP/CL (Chair), Mary A Peterson, PhD, ABPP/CL, Joel A Gregor, PsyD

Final Defense Passed: May 23, 2012.

- An empirical investigation examining the effect of therapist use of different technologies on the formation of the therapeutic alliance.

2010-Present Research Team Member: George Fox University, Newberg, Oregon

Chair: Mark R. McMinn, PhD, ABPP/CL

Meet bi-monthly to discuss and evaluate progress, methodology, and design of group and individual research projects.

- Assist team members in research design, data collection, and analysis.
- Areas of team focus: Technology in professional psychology, Integration of psychology and Christianity; spirituality; positive psychology of food; technology in professional pastoral care; religion; and barriers to psychotherapy; sehsucht in geriatric populations; evidence-based practice for the treatment of anorexia nervosa.

CONSULTATION

Providence Newberg Medical Center

10/2011-Present

Description: Provided consultation to ED to facilitate the identification, referral, and treatment follow up of chronic pain patients considered high-utilizers by the ED.

George Fox University RA Training: Suicide and College Students

11/2011

Description: Provided psychoeducation talk to resident assistants at a traditional four year undergraduate university. Talk covered student-suicide risk and protective factors, how to identify students at risk, and role-appropriate responses.

C.S. Lewis Academy

6/2011

Description: Collaborated with principal of private K-12 school to develop psychoeducational curriculum and identify appropriate developmental periods to introduce curriculum to students.

RELEVANT TEACHING AND ACADEMIC APPOINTMENTS

2012

Lecturer

Undergraduate Level Course: Introduction to Psychology- George Fox

University, Psychology Department, Newberg, Oregon
Cognitive-Behavioral, Humanistic, and Psychodynamic Approaches to Psychotherapy
 Professor: Robyn Honeycutt, MA

- 2012 **Lecturer**
Undergraduate Level Course: Introduction to Psychology- George Fox University, Psychology Department, Newberg, Oregon
Cognitive-Behavioral, Humanistic, and Psychodynamic Approaches to Psychotherapy
 Professor: Kimberly Snow, MA
- 2011 **Teaching Assistant**
Graduate Level Course: Cognitive-Behavioral Therapy- George Fox University, Graduate Department of Clinical Psychology, Newberg, Oregon
 Professor: Mark R. McMinn, PhD, ABPP/CL
- 2011 **Teaching Assistant**
Undergraduate Level Course: Advanced Counseling- George Fox University, Psychology Department, Newberg, Oregon
 Professor: Kristina Kays, PsyD
- 2011 **Lecturer**
Undergraduate Level Course: Introduction to Psychology- George Fox University, Psychology Department, Newberg, Oregon
Cognitive-Behavioral, Humanistic, and Psychodynamic Approaches to Psychotherapy
 Professor: Kathleen Gathercoal, PhD

RELEVANT COURSEWORK

Therapy	Clinical Foundations
	Cognitive-Behavioral Therapy
	Psychodynamic Psychotherapy
	Object Relations Psychotherapy
	Family and Couples Therapy
	Child and Adolescent Therapy
	Health Psychology
	The Psychology of Shame
	Multicultural Therapy

Assessment	Neuropsychological Assessment Cognitive and Intellectual Assessment Personality Assessment Clergy Assessment Child and Adolescent Assessment
Other	Consultation Psychometrics Statistics Research Methods

ACADEMIC SERVICE

Member of GDCP Admissions Team 11/2009-Present
Description: Working on team of faculty and students to review applications, rank applicants, offer and conduct interview to candidates, assist in conducting interview day for candidates, and offer admission to qualified applicants.

Student Council Member, GDCP 08/2009-04/2011
Description: Elected as class representative. Representing student body to student council and faculty, event planning, and facility improvement.

Peer Mentor 05/2010-Present
Description: Mentoring a first-year doctoral student in the GDCP. Responsibilities include providing guidance and assistance in order to help with the transition into graduate school.

Orientation Committee 08/2009-08/2010
Description: Collaborate with students, faculty and administrative staff to conduct a comprehensive, enjoyable, and meaningful orientation for new students in the GDCP prior to beginning coursework.

SELECTED PROFESSIONAL TRAINING AND WORKSHOPS

- Apr 2012 Two Warn Torn Soldiers: An Intersubjective Psychoanalytic Treatment for PTSD
Speakers: Russell Carr, M.D., Larry Christensen, Ph.D., Psy.D.
Site: Oregon Health Sciences University, Portland, Oregon
- Mar 2012 Mindfulness based treatment
Speaker: Erica Tan, PsyD

- Site:* George Fox University, Newberg, Oregon
- Feb 2012 Psychopharmacology: What You Need to Know about Psychiatric Medications
Speaker: Joe Wegmann, PD, LCSW
Site: George Fox University, Newberg, Oregon
- Nov 2011 Cross-Cultural Psychological Assessment
Speaker: Tedd Judd, PhD, ABPP/CN
Site: George Fox University, Newberg, Oregon
- Oct 2011 Motivational Interviewing: A Work in Progress, What It Is, and Why Use It
Speaker: Michael Fulop, PsyD
Site: George Fox University, Newberg, Oregon
- Oct 2010 Primary Care Behavioral Health: Where Mind, Body (& Spirit) Meet
Speaker: Neftali Serrano, PsyD
Site: George Fox University, Newberg, Oregon
- Oct 2010 Best Practices in Multi-Cultural Assessment
Speaker: Eleanor Gil-Kashiwabara, PhD
Site: George Fox University, Newberg, Oregon
- June 2010 Outcome Measure, Reimbursement, and the Future of Psychotherapy
Speaker: Jeb Brown, PhD
Site: Northwest Assessment Conference, George Fox University, Newberg,, Oregon
- June 2010 The Wechsler Memory Scale- 4th Edition: Overview and Use with the Advanced Clinical Solutions for the Wechsler Scale
Speaker: James A. Holdnack, PhD
Site: Northwest Assessment Conference, George Fox University, Newberg, Oregon
- Mar 2010 Current Guidelines for Working with Gay, Lesbian, and Bisexual Clients: The New APA Guidelines
Speaker: Dr. Carol Carver, PhD
Site: George Fox University, Newberg, Oregon
- Feb 2010 Integrative and Clinical Dimensions of Gratitude
Speaker: Dr. Phil Watkins, PhD
Site: George Fox University, Newberg, Oregon
- Nov 2009 Emergency Evaluation of The Psychiatric Patient
Speaker: Dr. John Mitchell, MD
Site: George Fox University, Newberg, Oregon

- Oct 2009 Life After the Discrepancy Model
Speaker: Dr. Denise Lopez-Haugen, PsyD
Site: George Fox University, Newberg, Oregon
- Sept 2009 Multicultural Counseling, An Alternative
Speaker: Dr. Carlos Taloyo, PhD
Site: George Fox University, Newberg, Oregon
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RELEVANT EXPERIENCE

- Counselor Training Weekend 11/2008
Speaker: Kimberley Knochel, M.A.
Site: East Lansing, Michigan
Description: Received training and equipping for basic counseling skills in mentoring ministry. Topics included the use of personal narrative, emotional and spiritual maturity, prayer, and identity formation and transformation.
- Coaching Practicum 01/2008-03/2008
Facilitator: John Robinson
Site: Multi-site conference call
Description: Participated in learning practicum for bringing coaching theory and skills to all levels of leadership including communication, motivation, listening, question asking, guiding, mentoring and training.
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PROFESSIONAL AFFILIATIONS

- 2009-Present American Psychological Association (Student Affiliate)
 2010-Present Christian Association for Psychological Studies (Student Affiliate)
 2010-Present Oregon Psychological Association (Student Affiliate)
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AWARDS AND HONORS

- 2012 Michael Warner Ministry and Service Award, George Fox University GDCP
- 2011 Distinguished Student, Selected by faculty, George Fox University GDCP
- 2007 Dean's List, University of Dayton

REFERENCES

References from current academic advisor or clinical supervisors can be provided upon request. Please send an email to nwiarda09@georgefox.edu for contact information.