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The Effect of Technology on Therapy Alliance

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The Effect of Technology on Therapy Alliance

by

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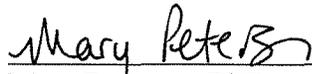Graduate School of Clinical Psychology
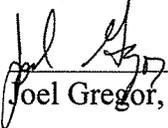
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The Effect of Technology on Therapy Alliance

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Abstract

The therapeutic alliance is considered a demonstrably effective variable for therapy outcomes independent of treatment type, yet the extent to which it may be affected by technology is vague. Similarly, studies examining how technology alters the therapeutic relationship in a traditional face-to-face context are sparse and inconclusive. The robust association between psychotherapy alliance and therapy outcomes combined with the lack of conclusive evidence concerning how technology influences this calls for more research on the relationship between alliance and technology. The current study examines how clients' perceptions of therapy alliance over the course of 10 sessions change with the administration of alliance and outcome measures via smartphone or pen and paper technologies. First-year graduate trainees ($n = 24$) of an APA-accredited doctoral program in clinical psychology served as beginning therapists to a non-clinical, volunteer population of undergraduate students ($n = 47$). Beginning therapists were randomly assigned to a control condition that administered paper-and-pen versions of the Session Rating Scale and Outcome Rating Scale or an

experimental condition administering modified versions of the same instruments through the use of an Apple iOS device. A repeated measures ANOVA was used to test for alliance differences across sessions 1, 5, and 10. Session Rating Scale administration method was used as the between-groups measure with the Outcome Rating Scale used as a covariate. Results indicated significant differences in alliance over the course of 10 sessions, $F(2, 43) = 7.00$, $p = .002$. No significant differences were found between alliance and administration method, $F(2, 43) = 0.43$, $p = .651$. Implications for clinical practice, research, and graduate training are considered.

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Chapter 1

Introduction

The working alliance between therapist and patient is a consistent and robust predictor for therapy outcomes and patient prognosis (Del Re, Fluckiger, Horvath, Symonds, & Wampold, 2012; Fluckiger, Del Re, Wampold, Symonds, & Horvath, 2012; Horvath, 2005; Horvath & Bedi, 2002; Horvath, Del Re, Fluckiger, & Symonds, 2011; Horvath & Symonds, 1991; Martin, Garske, Davis, 2000; Michel, 2011). Although the notion of working alliance can seem nebulous, the essence of the construct pertains to both the perceived relational bond between therapist and patient and their mutual understanding of goals and tasks (Bordin, 1979; Crits-Christoph et al., 2011; Del Re et al., 2012; Hatcher & Barends, 2006; Horvath & Bedi, 2002; Horvath, Gaston, & Luborsky, 1993). Gelso and Carter (1985, 1994) described this relational framework as, "the feelings and attitudes that therapist and client have toward one another, and the manner in which these are expressed" (as cited in Norcross & Lambert, 2011, p. 5).

The APA Division 29 Task Force on Evidence-Based Psychotherapy Relationships was formed to identify potent elements of alliance and specific ways therapy can be tailored to the individual patient (Norcross, 2001; Norcross & Lambert, 2011). Over the next decade the Task Force verified and asserted the importance of the therapeutic relationship as a demonstrably effective mechanism to enhance therapy outcomes (e.g., Norcross & Wampold, 2011). Even therapy techniques have relational implications (Norcross & Lambert, 2011; Safran & Christopher Muran, 2000). Regardless of the orientation or technique, the therapeutic relationship accounts for much of the improvement in a course of psychotherapy (Despland et

al., 2009; Fluckiger et al., 2012; Norcross, 2001; Norcross & Lambert, 2011; Norcross &

Wampold, 2011).

It seems a reasonable assumption that competent therapists produce positive outcomes,

but working alliance moderates this association also (Despland et al., 2009). Fluckiger et al.

(2012) provide a relatively recent meta-analysis that supports the ubiquitous connection between

alliance and outcome. Additionally, their meta-analysis dispelled an argument that the alliance-

outcome bond is less relevant in standardized evidence-based treatments for specific disorders,

as if often the case with randomized clinical trials (Carroll, Nich, & Rounsaville, 1997; Fluckiger

et al., 2012; Krupnick et al., 1996; Siev, Huppert, & Chambless, 2009). Clearly, therapy alliance

need not be seen as secondary to therapeutic technique, but is a primary variable.

Alliance and Technology

New technologies are emerging as a variable for therapeutic change. Smartphones,

tablets, and the software applications (apps) that accompany them pervade modern societies and

their influence within the field of psychology is undeniable (Dolan, 2010; Dolan, 2011; Eonta et

al., 2011; Luxton, McCann, Bush, Mishkind, & Reger, 2011; Peluso, 2012; Rosenberg, 2012).

Approximately 13,000 consumer health apps exist in Apple's App Store alone (Dolan, 2011).

Ninety-five million Americans use mobile phones as health tools (Comstock, 2013). Rosenberg

(2012) aptly discusses how this newer technological revolution makes relevant information,

"literally in the palm of our hands" (p. 215). However, psychologists' dedication to sound

research, ethics, and evidence-based practice creates reticence when integrating technology with

psychotherapy (Fitzgerald, Hunter, Hadjistavropoulos, & Koocher, 2010; Luxton et al., 2011;

McMinn, Bearse, Heyne, Smithberger, & Erb, 2011; Wiarda, McMinn, Peterson, & Gregor,

2014). A national survey investigating psychologists' beliefs and behaviors related to specific

uses of technology showed a degree of caution and ethical uncertainty (McMinn et al., 2011).

Although many psychologists agreed that technology may be used ethically, many reported never

using the majority of technologies listed. Perhaps the most interesting finding reported by

McMinn et al. (2011) is the high degree of ethical uncertainty that psychologists experience

about using new technologies in clinical practice. Respondents had the option of identifying a

particular behavior as ethical, unethical, or unsure. For a number of items, such as allowing

clients access to a profile on a social networking site, providing professional services via email,

or providing group psychotherapy online, the uncertainty ratings hovered around 40%. Almost

half of the 81 items on the questionnaire had uncertainty ratings of 30% or higher. Though

multiple factors contribute to the current uncertainty psychologists experience with technology,

the effect on therapy alliance is likely among the most prominent concerns. Therapy alliance is a

demonstrably effective variable for outcome, but psychologists experience uncertainties about

how new technologies affect alliance (McMinn et al., 2011; Norcross & Wampold, 2011; Wiarda

et al., 2014).

Only a small body of research focuses on the relationship between technology and

working alliance, with most studies finding that using technology has a neutral effect on alliance.

Wiarda et al. (2014) found that the use of computers and iPads did not compromise therapy

alliance for initial interviews. Likewise, when Kiropoulos et al. (2008) compared the

effectiveness of internet-based CBT and face-to-face CBT for panic disorder and agoraphobia,

no significant differences for therapy alliance were found. Stefan and David (2013) compared

client perceptions of working alliance between face-to-face therapy and a condition that utilized

an advanced videoconferencing system projecting high definition 3-D holograms of the clinician. Again, no differences in the perceived quality of working alliance were found between the two conditions (Stefan & David, 2013).

A few studies have demonstrated positive associations between alliance and online psychotherapy, sometimes called e-therapy. E-therapy involves the providing of services through e-mail, video conferencing, virtual reality, online chat, or any combination of these mediums (Manhal-Baugus, 2001; Sucala, Schnur, Brackman, Constantino, & Montgomery, 2013). Effective alliance can be established in e-therapy, with the majority of participants rating the therapy relationship as pleasant, personal, and growth producing (Ruwaard, Lange, Bouwman, Broeksteeg, & Schrieken, 2007; Ruwaard et al., 2009; Sucala et al., 2012). Few studies have used an adequate control (Cook & Doyle, 2002) or comparison (Reynolds, Jr., Stiles, Bailer, & Hughes; 2013) group to compare face-to-face psychotherapy with e-therapy, but those that have show either equivalence in working alliance or some advantage to the alliance formed in e-therapy (Sucala et al., 2012).

The studies showing negative associations between technology and working alliance tend to consider psychotherapists' ratings rather than clients' ratings. Johansen, Lumley, and Cano (2011) found that therapist-rated alliance measures were lower when patients viewed preparatory videos for therapy alliance prior to their first session. Similarly, Sucala et al. (2013) found that clinicians rated face-to-face alliance as significantly more important than e-therapy alliance though clinicians found alliance to be an important concept in both forms of therapy. These same clinicians reported less confidence in their ability to develop alliance in e-therapy compared to face-to-face therapy. Sucala et al. (2013) also reported a positive correlation between therapists'

confidence in their ability to develop a strong therapeutic alliance in face-to-face therapy with

their years of experience, but no corresponding correlation existed when considering their

confidence in developing an e-therapy alliance. Finally, psychologists who observed an identical

session either by face-to-face or videoconferencing formats rated the therapeutic alliance

significantly lower in the technologically-mediated format (Rees & Stone, 2005).

       The literature is scarce when examining the affect technology may have on therapy

alliance in a traditional, face-to-face context. Virtual reality exposure (VRE) therapy is a

technology used in face-to-face therapy requiring participants to wear a head-mounted display

that includes a helmet, eye gear, and earpiece (Ngai, 2012). It is one of the few technologies

tested for its impact on working alliances. Ngai (2012) assessed client perceptions of working

alliance between exposure group therapy (EGT) and VRE in a social anxiety disorder population.

The VRE conditions, which preclude eye contact and create a physical barrier between client and

therapist, were speculated to result in a slower alliance development than experienced among

EGT participants (Meyerbroker & Emmelkamp, 2010; Ngai, 2012). Contrary to the expectations,

results indicated high levels of working alliance and no significant differences in alliance ratings

between treatment conditions (Ngai, 2012).

       Augmented reality exposure therapy (ARET) is a more advanced permutation of virtual

reality technology. ARET provides a greater sense of presence and reality because the

participants use their own hands and feet versus a projection of these (Juan et al., 2005). ARET

environments are real and the elements within it can be used to interact with the application

(Juan et al., 2005). Wrzesien et al. (2013) found no significant differences in therapy alliance

between ARET and in vivo exposure therapy (IVET) for an animal-phobic population. A

separate study evaluated the idea of collaboration between ARET and IVET conditions

(Wrzesien, Burkhardt, Botella, & Alcaniz, 2012). Collaboration is part of therapy alliance, but is

a minimal focus in many therapy alliance measures (Elvins & Green, 2008; Wrzesien et al.,

2012). Wrzesien et al. (2012) reported high collaboration scores in each condition, but ARET

clinicians were more distracted and more likely to dominate verbal communication.

In summary, several observations are important to consider from the sparse literature on

alliance and technology. First, many studies report no difference between face-to-face

interventions and those that are supplemented or replaced with technological interventions.

Although science proceeds most smoothly when significant differences are discovered and

reported, in emerging areas such as this it is often meaningful when researchers find no

significant differences between conditions. Second, when technology distracts from working

alliance it tends to be based on therapists' perceptions and behaviors more than client perceptions

and behaviors. Therapists experience less confidence in their ability to form alliance in e-therapy

than in face-to-face therapy (Sucala et al., 2013), and they may be more distracted when using

unfamiliar technologies such as ARET (Wrzesien et al., 2012). Third, it seems clear that a

working alliance can be warm and reparative whether or not technology is involved (Cook &

Doyle, 2002; Kiropoulos et al., 2008; Knaevelsrud & Maercker, 2006, 2007; Ngai, 2012;

Ruwaard et al., 2007, 2009; Stefan & David, 2013; Sucala et al., 2012, 2013; Wiarda & McMinn,

2012; Wrzesien et al., 2012, 2013).

Assessing Alliance in Psychotherapy

Given the significance of working alliance in psychotherapy, it is important to consider

how it is assessed in the context of psychotherapy. Horvath et al. (2011) provide an exhaustive

literature review and meta-analysis based on 201 studies. Among various other conclusions, several are relevant to the current study. First, Horvath et al. (2011) conclude that alliance is important for all sorts of psychotherapy, including those involving technology. "The therapist and client must find the level of collaboration suited to achieve the work of therapy—even if they do not have face-to-face contact" (p. 56). Second, it is striking how many different alliance assessment measures are available, with more than 30 measures being used in past research. Third, Horvath et al. (2011) conclude that observer and client perspectives on alliance provide better outcome predictions than therapist perspectives on alliance, making it important for therapists to look for more than their own subjective appraisal regarding therapeutic alliance. Fourth, the studies reviewed by Horvath et al. (2011) varied widely as to when and how often alliance was assessed. Some studies collected alliance data early in the treatment relationship, some in the middle, and some near the end of treatment. Many studies reported multiple alliance measures over the course of therapy. The association between alliance and outcome is strongest when they are assessed near the same time. In the conclusion of their review and meta-analysis, Horvath et al. (2011) argue, "therapists need to closely monitor the client's perspective on the alliance throughout the treatment" (p. 56).

One effective means for ongoing alliance assessment is the *Session Rating Scale* (SRS), which can be found in Appendix A (Johnson, Miller, & Duncan, 2000; Miller, Hubble, Chow, & Seidel, 2013). The SRS is an ultra-brief, four-item, visual analogue instrument inspired by Bordin's (1979) traditional themes of alliance encompassing (a) the client and therapist bond, (b) the agreement on goals, (c) the agreement on tasks. The SRS also reflects Gaston's (1990) emphasis on the congruence between client and therapist beliefs concerning how people change

in psychotherapy (Duncan et al., 2003). The SRS has demonstrated consistency and efficacy for

measuring therapeutic alliance (Duncan et al., 2003; Miller, Duncan, Brown, Sorrell, & Chalk,

2006; Miller, Duncan, Brown, Sparks, & Claud, 2003; Miller et al., 2013) and was shown to

have a relationship to outcome similar to other established alliance measures (Duncan et al.,

2003). Using the SRS to assess therapeutic alliance and the Outcome Rating Scale (ORS) to

assess outcome (see Appendix B), Miller et al. (2006) had clients complete these brief measures

during sessions in order to determine their effects on retention and outcome in therapy. After

clinicians were trained on proper administration for the ORS and the SRS, baseline data were

collected from 1,244 clients (Miller et al., 2006). Following this collection of normative data,

automated feedback of the clients' outcome and alliance ratings was provided to clinicians for

the next 1,568 clients who sought services (Miller et al., 2006). Finally, ongoing ORS/SRS

ratings were collected from an additional 3,612 clients to provide a large enough sample from

which retention in and outcome from psychotherapy could be assessed. The clients whose

therapists failed to seek feedback as assessed by the SRS were three times less likely to return for

a second session and had poorer outcomes (Miller et al., 2006). Thus, the incorporation of the

SRS into therapy has demonstrated the benefits and feasibility of ongoing alliance monitoring.

  The effects of modern digital technologies on therapeutic alliance and how it is measured

remains uncertain. Wiarda et al. (2014) found no difference in alliance in the initial interview

whether the clinician used an iPad, a computer, or pen and paper. It remains unclear how using

technology in session affects alliance over the course of the treatment relationship. The purpose

of the present study was to understand how differing alliance and outcome tracking technologies

impact clients' perceptions of therapy alliance, with the hypothesis that administering the alliance

and outcome measures via smartphone technology will not result in any overall alliance

differences than administering the same measures with pen and paper.

Chapter 2

Methods

Participants

Participants of this study were divided into two subcategories of beginning therapists and simulated psychotherapy pseudo-clients. Participants from the beginning therapists subset were first-year graduate trainees in an APA-accredited doctoral program in clinical psychology invited to participate in a study monitoring outcome and alliance in therapy via pen-and-paper or smartphone versions of the SRS and ORS. Participants from the pseudo-clients subset were obtained from a non-clinical population of 48 undergraduate students enrolled in an Introduction to Psychology course from the same institution that the doctoral program was housed. Pseudo-client participants volunteered to participate in a course of simulated psychotherapy for class credit. Fourth year PsyD teaching assistants, being supervised by a licensed psychologist, conducted brief telephone interviews with student volunteers to screen for symptom severity that may have warranted a referral to university counseling services. Alliance and outcome ratings were collected from pseudo-clients as they completed training sessions with their beginning therapists. Twenty-four beginning therapists provided 10 sessions of psychotherapy for two undergraduate pseudo-clients, resulting in a total of 480 sessions. Half of the trainees, and thus half of the sessions, used a smartphone application to administer the ORS and SRS each session. The other half administered paper versions of the ORS and SRS.

Fifty-eight percent of the beginning therapists were female, 42% were male. Further

demographic data of beginning therapists was not collected.

The age range of pseudo-client participants varied between 18-31 years, $N = 47$, $M =$

19.23, $SD = 2.04$. Fifty-five percent were female, 45% were male. The ethnicity of pseudo-

client participants was 43% European-American, 7% Hispanic or Latino, 2% African-American,

and 48% biracial, other, or unknown. Control group ages ranged from 18-22, $N = 23$, $M = 18.9$,

$SD = 1.11$. Sixty-one percent were female; 39% were male. Experiment group ages ranged from

18-31, $N = 24$, $M = 19.5$, $SD = 2.65$. Fifty percent were female; 50% were male. No differences

in SRS administration groups were observed prior to the intervention on age, $t (45) = 0.91$, $p = .$

368, or gender, $X^2 (1) = 0.56$, $p = .561$.

Instruments

Session Rating Scale. Therapy alliance was assessed with the Session Rating Scale V3.0

(SRS), which functions similarly to other alliance measures (Campbell & Hensley, 2009; Duncan

et al., 2003; Johnson et al., 2000). SRS reliability and validity have been compared to the

Helping Alliance Questionnaire II (HAQ-II; Luborsky et al., 1996). The HAQ-II has an internal

consistency of $a = .90$ and test-retest reliability of $r = .63$. In comparison, the SRS obtained an

internal consistency of $a = .88$, test-retest reliability of $r = .64$, and concurrent validity with the

HAQ-II of $r = .48$ (Duncan et al., 2003). The SRS was also comparable to a longer, more

established measure called the Working Alliance Inventory-Short Form (WAI-S; Busseri & Tyler,

2003; Horvath & Greenberg, 1989; Tracey & Kokotovic, 1989). The WAI-S is comprised of 12

items representing the four highest-loading items on the Task, Bond, and Goal subscales of the

original 36-item Working Alliance Inventory (WAI). Each subscale showed strong internal

consistency estimates (a = .90, .92, and .90; Tracey & Kokotovic, 1989). Campbell and Hensley

(2009) tested the SRS in a rural primary care setting and found strong internal consistency (a = .

93) and concurrent validity with the WAI-S (r = .63). Scores that fall below 36 on the SRS are

considered to be problematic impressions of the alliance (Miller, Duncan, Sorrell, & Brown,

2005).

  Outcome Rating Scale. Clinical outcomes was assessed with the Outcome Rating Scale

(ORS; Miller et al., 2003) that was developed as a brief alternative to the Outcome

Questionnaire-45 (OQ-45; Lambert et al., 1996). The OQ-45's purpose is to monitor patient

progress in therapy by assessing three domains of functioning: (a) individual, (b) relational, and

(c) social (Miller et al., 2003). The OQ-45 exhibited a high sensitivity to treatment interventions

(Vermeersch, Lambert, & Burlingame, 2000) and accuracy when discriminating between clinical,

community, and nonclinical samples (Lambert & Hawkins, 2004; Umphress, Lambert, Smart,

Barlow, & Clouse, 1997). Psychometric analysis of the ORS resulted in high internal consistency

(a = .93) and moderate test-rest reliability (r = .66), and was moderately correlated (r = .59) to

concurrent validity on the OQ-45 (Campbell & Hemsley, 2009).

  Both the SRS and ORS consist of four-item visual analogs administered at the beginning

or end of each session and require less than a minute to complete. Each of the four items on the

SRS and ORS are measured by 10-centimeter horizontal continuums and require the patient to

designate a vertical hash mark with a writing utensil. The placements of the hash marks indicate

the clients' subjective perception of symptoms (ORS) or alliance (SRS) for that session. Item

scores on the SRS and ORS are equivalent to the distance in centimeters (to the nearest

millimeter) between a client's hash mark and the left pole of the items. SRS and ORS item

scores are summed to calculate the total score (maximum of 40) for each particular instrument

(see Appendices A and B).

Demographic Questionnaire. Undergraduate students were asked to answer a short

demographics questionnaire during the intake interview indicating age, sex, and ethnicity. The

demographics questionnaire can be found in Appendix C.

Procedures

Doctoral trainees were invited to participate; informed consent was obtained from

interested students (see Appendix D). Due to the Apple iOS software requirement of the digital

technology utilized to track outcome and alliance, participants reported if they had access to an

Apple iOS device (iPhone, iPad, iPod Touch).

Twenty-four beginning therapist participants were randomly assigned to the control or

experiment condition via the random number function on Excel (RAND function). The control

condition tracked alliance and outcome via paper administrations. The experimental condition

tracked alliance and outcome using a modified version of the Therapy Outcome Management

System (TOMS) application (Wiarda & McMinn, 2012). Beginning therapist participants who

previously indicated a lack of access to Apple iOS compatible devices in their consent forms, but

were randomly assigned to the experimental group were re-assigned to the control condition.

From there, a random selection was made from the control condition to replace the vacated spot

in the experimental group via RAND function. This randomized swapping procedure continued

until all beginning therapists assigned to the experiment group were participants indicating

access to Apple iOS compatible devices.

The primary researcher of this study conducted a training session for each condition. During the training the experimental group installed the modified-TOMS applications to their device and received instruction for how to use the software proficiently.

Participants were first year PsyD candidates for whom simulated psychotherapy was part of a Clinical Foundations course embedded in their PsyD program. Treatment reflected the course emphasis on basic therapy skills (e.g., body language, non-verbal communication, eye-contact, etc.) and Rogerian client-centered psychotherapy (e.g., incongruence/congruence, non-directive, unconditional positive regard). Trainees video-recorded each of their sessions and received supervision from fourth year PsyD teaching assistants who were supervised by a licensed clinical psychologist.

Participants and their therapy clients were randomly assigned an identification number via RAND function to protect confidentiality. The file associating names with identification numbers was not accessible to the primary researcher, thereby assuring that analyses was conducted blindly. SRS/ORS forms were collected each session and stored in a locked file cabinet. For the experimental group, a digital database containing an index identification number for beginning therapists and their pseudo-clients was created to track TOMS scores. The digital database was password protected, de-identified, and stored in a cloud database. Both the SRS and ORS were administered during each of the 10 sessions per client.

At the conclusion of the study, participants received collective results summarizing the effect that technology was found to have on alliance. Therapists in both the control and experimental group were offered an electronic copy of the TOMS App as compensation for participating in the study.

Chapter 3

Results

A repeated measures ANOVA was used to test for alliance differences across sessions one, five, and ten. SRS administration method was used as the between-groups measure, and the initial ORS score was used as a covariate. Results showed significant differences in alliance over the course of 10 sessions, $F (2, 43) = 7.00, p = .002$. Administration methods between the paper and pen and Apple iOS groups were found to have no significant differences for alliance, $F (2, 44) = 0.07, p = .790$. No interactions were found between the repeated-measures alliance score and administration methods, $F (2, 43) = 0.43, p = .651$. Similarly, no covariate effects were found. The means for each group are shown in Table 1.

Table 1

SRS Results

Session	Group	Mean	SD	N
Session 1	Apple iOS	34.28	5.08	24
	Paper & Pen	34.98	4.50	23
	Total	34.62	4.76	47
Session 5	Apple iOS	36.60	4.18	24
	Paper & Pen	37.62	2.67	23
	Total	37.10	3.52	47
Session 10	Apple iOS	38.79	1.64	24
	Paper & Pen	38.65	1.76	23
	Total	38.72	1.68	47

Note. Means and standard deviations are reported for Session Rating Scale scores, which range from 0 to 40.

Chapter 4

Discussion

The purpose of the present study was to understand how differing alliance and outcome tracking technologies impact clients' perceptions of therapy alliance. Research consistently identifies therapy alliance as a strong component of variance in therapy outcomes (Horvath & Bedi, 2002; Norcross & Lambert, 2011; Norcross & Lambert, 2014; Norcross & Wampold, 2011; Shedler, 2010; Wampold, Minami, Baskin, & Callen Tierney, 2002). At the same time, the human-technology interaction and the effect technologies have on therapy alliance is a scant, but burgeoning area for guidelines and research (Doherty, Coyle, & Matthews, 2010; Wiarda et al., 2014). First-year trainees from an APA-accredited doctoral program in clinical psychology used paper and pen or Apple iOS technology to record perceptions of therapy alliance and therapy outcomes in a volunteer undergraduate population. As hypothesized, no significant differences were observed in alliance between the conditions.

Though differences were not observed between the pencil-and-paper and iOS groups, a null hypothesis can never be proven. Thus, it is important to exercise caution when considering the implications of this study.

Clinical Implications

Results from the present study suggest that using smartphone technology to aid in monitoring alliance and outcome of psychotherapy is comparable to traditional paper and pen methods of monitoring. Further research is required to assess other modes of monitoring and other types of technology; however, current data indicate that face-to-face technologies can likely be used for purposes of assessing outcome and alliance without concern of virtual administration impacting patient report of therapeutic alliance.

In the past, usefulness and impact of routine outcome measures on therapy alliance has been a source of discontinuity and speculation (Boswell, Kraus, Miller, & Lambert, 2013; Hatfield & Ogles, 2004; Hatfield & Ogles, 2007). However, studies examining the implementation of SRS and ORS measures have routinely shown enhanced perceptions of alliance and outcome by considerable margins (Anker, Duncan, & Sparks, 2009; Duncan et al., 2010; Miller et al., 2005; Shaw & Murray, 2014). Measures of routine client feedback such as the SRS can be particularly useful in helping therapists identify patients who are not improving in psychotherapy and to make mid-treatment alterations to improve patient outcomes (Lambert, 2007; Owen & Imel, 2010; Shimokawa, Lambert, & Smart, 2010). Ultra-brief measures do indeed trade nuanced clinical information for utility and brevity (Campbell & Hemsley, 2009); however, such measures promote dialogue with clients and are based on competent, client-directed integration (Shaw & Murray, 2014). Although this study does not assume monitoring to be completely innocuous, it appears doing so through smartphone technology impacts rapport no differently than paper and pen technology.

Record keeping is an indispensable aspect of clinical work. Moving to electronic monitoring of alliance and outcome data may help clinicians organize and maintain records more

efficiently. Not only can electronic monitoring allow psychologists the ability to monitor their clients' feedback in a systematic and ongoing fashion (Lambert, 2007), but psychologists' measures to ensure record retention can be simplified and conveniently transferable in the event of relocation. Moreover, electronic data collection allows for aggregation and analysis of data that, in turn, has implications for evaluation and training.

In their closing commentary on studying relationship science and practice in psychotherapy, Norcross and Lambert (2014) note that therapist rigidity results in empathic failures and inattentiveness to clients' experiences (see also Ackerman & Hilsenroth, 2001). This is no less true of the methods psychologists use to monitor treatment progress and relationship satisfaction. Clinicians must remain flexible and open-minded in regard to client preferences when choosing methods to monitor alliance and outcome. Such preferences may include inclinations towards traditional or technologically advanced administration methods. In either case, "effective psychotherapy cannot, and does not, exist without a positive relationship" (Norcross & Lambert, 2014, p. 399). The present study shows no evidence that paper and pen and digital methods have differing effects, and so clinicians are encouraged to embrace flexibility and client preference without fear that digital administration may confound assessment results.

Research Implications

Although outcome and alliance monitoring is presumably a safe way that face-to-face technology can be incorporated into psychotherapy, the proliferation of software apps and other modern technologies make specificity essential for future research. Psychologists' reticence to integrate modern technology is largely due to unfamiliar ethical guidelines and implications of

newer technologies (Matthews, Doherty, Coyle, & Sharry, 2008; McMinn et al., 2011; Taylor, McMinn, Bufford, & Chang, 2010). Examining how specific technologies mediate outcome will alleviate clinicians' uncertainty (Eonta et al., 2011; McMinn et al., 2011). Which technology is selected, for what purpose, and how the technology is delivered are key tasks for future researchers to consider.

This study implemented face-to-face technology through a relatively accommodating procedure as part of traditional talk psychotherapy—briefly at the beginning and end of sessions using global assessment measures. Research exploring those technologies that are perceived as less accommodating to traditional talk psychotherapy, especially for intervention purposes, is needed. Tablets and smartphones may slightly modify evidence-based interventions, but outcomes mediated by such applications are seldom researched and mostly undetermined (Luxton et al., 2011; Wiarda et al., 2014; Singh, 2014). Internet-based mental health services have the potential to provide users anonymity and convenience in treatment (Leibert, Archer, Munson, & York, 2006; Singh, 2014), but it is not yet clear whether software meant to facilitate face-to-face psychotherapy or be used in conjunction with face-to-face psychotherapy affects therapeutic alliance and outcome. More research focusing on outcomes related to app-assisted face-to-face psychotherapy will be useful.

Another research implication is to explore not only the efficacy of specific technologies and their relationship to therapy alliance, but also the relationship that clinicians and clients form with the technology itself. Social networking, wearable and embedded sensors, cameras, tablets, mobile phones, and diverse software apps have generated more practical and emotional significance in people's lives than ever (Morris & Aguilera, 2012). In a study examining fMRI

imaging in a population exposed separately to audio and video of a ringing and vibrating iPhone, Lindstrom (2011) discovered significant activation in the insular cortex of the brain, a structure closely associated with feelings of love and compassion. The modest population in Lindstrom's (2011) study essentially responded to the iPhone as they do a loved one (Morris & Aguilera, 2012).

Ito, Daisuke, and Matuda (2005) use the term of *Keitai* to describe the profound nature to which cellular phones, mobile phones, or mobile communications are embedded within the society of Japan. The intense attachment between individuals and their *Keitai* is discussed as one where self and technology merge not only at a societal level, but a personal one too (Ito et al., 2005; Morris & Aguilera, 2012). It appears human beings are capable of attaching and responding to their modern technologies in ways that emulate human-to-human relationships. It is unclear whether or not the relationships people form with a technology can moderate the effects of technology on therapeutic alliance. Most studies that have investigated the relationship between technology and therapy alliance derive their results from populations already fluent and accepting of the technology being utilized (King, Bambling, Reid, Thomas, 2006; Knaevelsrud & Maercker, 2006; Leibert, Archer, Munson, & York, 2006; Sucala et al., 2013; Ruwaard et al., 2009; Wiarda et al., 2014). Future studies that investigate the preset knowledge, attitudes, and perceptions clinicians and clients hold toward a technology may provide a more nuanced understanding of how technology effects outcome and alliance.

Training Implications

Training programs are grounds for trainees to develop competency and maximize their potential as future clinicians. Focusing on skills that enhance trainees capability to build

constructive therapy alliances, including their proficiency in navigating eventual or persistent

alliance ruptures, is far more important than how the alliance is measured (Baldwin, Wampold, &

Imel, 2007; Norcross & Lambert, 2011; Norcross & Wampold, 2011; Safran, Christopher Muran,

& Eubanks-Carter, 2011). As Wiarda et al. (2014) aptly stated, "good treatment is the goal, not

necessarily new technologies" (p. 20). In other words, the means is not the end. New

technologies have the potential to aid good treatments and comprehensive training (Eonta et al.,

2011; Luxton et al., 2011; Morris & Aguilera, 2012; Wiarda et al., 2014). Graduate programs

may benefit from integrating new technology into their formalized agendas, including didactics

and visual aids, supervision, methods to track trainee development in APA competencies, course

curriculum, and modes of information exchange (e.g., email, text, video-conferencing).

Ideally, training programs can provide trainees with rich and immersive education on

issues related to technology and alliance. Though new technologies continue to permeate the

everyday lives of the general population, clinicians do not hold the same resolve toward

technology in their clinical work. Despite the fact that a relatively large amount of clinicians

believe technology can be incorporated ethically, they tend to refrain from their actual use in

practice (McMinn et al., 2010). Graduate programs can be grounds for exposure to offset the

anxieties that specific technologies invoke in trainees under the tutelage of close supervision and

oversight from their faculty and supervisors.

Not only can trainees gain practical familiarity with technology, but also their programs

are an ideal forum to learn about resources covering the ethical integration of technology and

psychology. Doherty et al. (2010) proposes a comprehensive set of design and evaluation

guidelines for future mental health technologies. The American Counseling Association's (ACA)

Code of Ethics (2006) included a portion of a section (A.12.) to technology applications. By

2014, the ACA expanded this topic by devoting an entire section (H) to, "Distance Counseling,

Technology, and Social Media" (p. 17). The APA Policy and Planning Board (2009) dedicated

an annual report concerning technology and psychology, presciently underscoring how,

"Technology has become a fundamental force in shaping the identity, cognitive and affective

processes, and social activities of our students, clients, and research participants" (p. 454).

Devereaux and Gottlieb (2012) explore the risks and benefits of record keeping in the cloud and,

more recently, an APA Joint Task Force for the Development of Telepsychology Guidelines for

Psychologists (2013) implemented new guidelines for the practice of telepsychology. Clearly,

graduate programs have the opportunity to find themselves, trainees and faculty alike, in the

midst of relevant dialogue taking place on the ethicality and implications of technology. This

will depend, however, on the willingness, resources, and legitimacy training programs choose to

ascribe to the topic.

Limitations

A major limitation to the present study was the lack of various diversity markers in the

pseudo-client population. Though all pseudo-client participants were fairly balanced in respect

to gender (55% female, 45% male), the majority were of unknown ethnic background (48%) or

European American (43%). Age and socio-economic status were additional areas of limited

diversity. All pseudo-client participants of this study were young adults ranging between the

ages of 18-31. Studies suggest there may be various generational differences in respect to

technology use, perceptions, literacy, and outcomes (Cotton, Ford, Ford, & Hale, 2012; Heinz et

al., 2013; Jackson et al., 2009; Van Volkom, Stapley, & Amaturo, 2014). The present study did

not control for pseudo-client participants' socio-economic background as well. As a result, this study cannot account for clients' perception of therapy alliance when asked to provide feedback through a device they could not hope to afford. Feedback from populations that varied more diversely in age and socio-economic status would have provided more ecological validity to the results of this study.

A final limitation of this study was the use of non-clinical participants. Respondents were undergraduate students enrolled in an Introduction to Psychology course. Students received class credit for their voluntary participation in a brief round of simulated psychotherapy with first year PsyD candidates. PsyD candidates were from a doctorate in clinical psychology program embedded within the same institution. Researching a clinical population may have allowed for finer distinctions to be made within the results and implications of this study.

Conclusion

Spanning Freud's (1913) psychoanalytic convictions to the ubiquity of empirical meta-analyses of the early 21st century, fostering solidarity within the therapeutic dyad has become the *sine qua non* to beneficial psychotherapy outcomes. At the same time, technology continues to expand the individual's experience and understanding of self, relationship, connection, and ability. Connectivity and information is attainable in unprecedented ways now that the modern human comes swathed in technology, from wearable sensors, tablets, and smartwatches to Google Glass and smartphones. Though technologies rarely achieve the heights that futurists yearn for or the destruction cynics warn against (APA Policy & Planning Board, 2009), they create new potentials and challenges to form and sustain vibrant, therapeutic alliances in the practice of professional psychology. It was hypothesized that client perceptions of therapy

alliance would not result in overall differences when the technologies for tracking outcome and

alliance differed between Apple iOS and paper-and-pen forms. This hypothesis was confirmed

as no statistically significant differences in perceptions of alliance were found between the

administration methods examined. In summary, we found no evidence that advanced Apple iOS

technology detracts from the relationship formed between first year PsyD candidates and their

simulated psychotherapy clients. This result has implications for how psychologists can serve

the mental health needs of those who invite us into their journeys, courageously entrusting us

with their most vulnerable selves.

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Appendix A

Session Rating Scale

Session Rating Scale (SRS V.3.0)

Name _____Age (Yrs):____
ID# _____ Gender:_____
Session # ____ Date: _____

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

Relationship

I---I

Goals and Topics

I--I

Approach or Method

I--I

Overall

I--I

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_____

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Appendix B

Outcome Rating Scale

Outcome Rating Scale (ORS)

Name _____Age (Yrs):_____ Gender_____
Session # _____ Date: _____
Who is filling out this form? Please check one: Self_____   Other_____
I f   o t h e r ,   w h a t   i s   y o u r   r e l a t i o n s h i p   t o   t h i s   p e r s o n ?
_____

Looking back over the last week, including today, help us understand how you have been feeling by rating how well you have been doing in the following areas of your life, where marks to the left represent low levels and marks to the right indicate high levels. *If you are filling out this form for another person, please fill out according to how you think he or she is doing.*

Individually

(Personal well-being)

I---I

Interpersonally

(Family, close relationships)

I---I

Socially

(Work, school, friendships)

I---I

Overall

(General sense of well-being)

I---I

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Appendix C

Demographic Questionnaire

Demographic Questionnaire

IDENTIFICATION DATA:

Name_____   Date of Intake_____/_____/_____

DOB_____   Age_____   Sex_____   Ethnicity_____

Appendix D

Informed Consent

The Effect of Technology on Therapy Alliance

Purpose of this study: To explore the effect that technology-mediated outcome and alliance monitoring has on clients' perceptions of therapy alliance.

Procedure: Participants will be randomly assigned to paper SRS/ORS or Apple iOS groups to track alliance and outcome. Prior to simulated psychotherapy, each group will receive specialized training to ensure proper administration of their alliance and outcome tracking technology. The Apple iOS group will receive a free installation of a software app during their training. Therapists and clients will all be assigned ID numbers to protect confidentiality. Participants will implement measures and collect data for 10 sessions per client as required by the Clinical Foundations course.

Confidentiality: The information from this study will be kept secure and private. While results may be reported or published, there will be no identifying information that could connect you to the results.

Discomfort and risks from participation: There are no anticipated discomforts or risks from participation in this study.
Voluntary Nature of the Study: Your participation is voluntary. By offering your signature and implementing the paper SRS and ORS or a modified software application meant for identical purposes, you are consenting to have the results of your survey be used in this study. You may request to withdraw your participation at any time.

Compensation: Participants who complete the tasks of this study will be offered a free copy of an Apple iOS compatible software application entitled the Therapy Outcome Management System (TOMS; Wiarda & McMinn, 2012). Results of this study will be available per request. If interested, or if you have questions about this study, contact Ryan F. Birch, M.A., at rbirch11@georgefox.edu or Mark R. McMinn, PhD, at mmcminn@georgefox.edu.
By signing your signature below, you agree to the terms of this informed consent page.

_____   _____

Printed Name   Signature

Date: _____/_____/_____

Please check the box below to indicate access to an Apple iOS compatible device (iPhone, iPad, iPod).

| YES | | NO |

Appendix E

Curriculum Vitae

R y a n   F l e t c h e r   B i r c h

· 324 7th Avenue #3F · · Brooklyn, New York · · 11215
· 415-233-1131· · RBirch11@georgefox.edu

EDUCATION

2011 to Present Expected 5/2016	**Doctor of Psychology, Clinical Psychology** Graduate Department of Clinical Psychology (APA Accredited) George Fox University, Newberg OR DISSERTATION TITLE: The Effect of Technology on Therapy Alliance
8/2013	**Masters of Arts, Clinical Psychology** Graduate Department of Clinical Psychology (APA Accredited) GPA: 3.91 George Fox University, Newberg OR
5/2009	**Bachelor of Arts, Ministry** **Minor in English, Minor in World Religions** (WASC Accredited) Azusa Pacific University, Azusa CA

SUPERVISED CLINICAL EXPERIENCE

07/2015 to Present Expected 6/2016	**INTERNSHIP: Nassau University Medical Center** LOCATION: East Meadow, New York SETTING: Combined Inpatient/Outpatient Teaching Hospital SUPERVISORS: Laura Lamontanaro, PsyD POPULATION: Primarily children and adults with acute or severe and persistent mental illness, primary mood disorders, and personality psychopathology DESCRIPTION: Primary rotations included acute-inpatient individual and group psychotherapy within an interdisciplinary context, long-term individual and group psychotherapy in adult and child & adolescent outpatient clinics. Completed mini-rotations in an intensive high-risk unit for a forensic population and Neuropsychological assessment & consultation. Administered comprehensive diagnostic and

neuropsychological assessments. Presented case presentations within group supervision, interdisciplinary teams, and interdepartmental settings. Presented clinical team didactics on psychodynamic theory and psychotherapy.

8/2014 to 06/2015   **PRE-INTERNSHIP: Oregon State Hospital**
LOCATION: Salem, Oregon
SETTING: Inpatient forensic hospital
SUPERVISOR: Carlene Shultz, PsyD
POPULATION: Adults with severe and persistent mental illness
DESCRIPTION: Provided brief and year-long individual and group psychotherapy for a severe and persistently ill inpatient, forensic population. Predominant psychotherapy frame involved long-term supportive psychodynamic individual psychotherapy. Worked within a fully-staffed, multidisciplinary team for contextualized treatment, training, and support. Implemented comprehensive psychological assessment batteries for psychodiagnostic and forensic referral purposes. Presented case presentations in group supervision summarizing clinical work with two year-long individual psychotherapy cases and one comprehensive assessment case.

7/2013 to 6/2014   **PRACTICUM II: Willamette Family Medical Center**
LOCATION: Salem, Oregon
SETTING: Integrated and co-located primary care clinic
SUPERVISOR: Joel Gregor, PsyD
POPULATION: Primarily underserved ethnic and cultural minority children, adults, and families with chronic physical and mental health concerns
DESCRIPTION: Provided outpatient, individual and family, brief psychotherapy within an interdisciplinary context. Administered comprehensive assessments and consulted with primary care physicians regarding assessment and ongoing treatment. Presented two didactics adapted for providers and medical assistants: "How To Read Comprehensive Assessment Reports" and "Motivational Interviewing in Primary Care."

9/2012 to 5/2013   **PRACTICUM I: George Fox University Health and Counseling Center**
LOCATION: Newberg, Oregon
SETTING: College counseling
SUPERVISORS: Bill Buhrow, PsyD Kris Kays, PsyD
POPULATION: Adult undergraduate and graduate students

DESCRIPTION: Provided predominantly short-term solution-focused, cognitive-behavioral, and third-wave individual psychotherapy treatments for an emerging adult population. Completed three year-long, insight-oriented individual psychotherapy cases from initial intakes to termination. Conducted risk assessments, risk consultations, and personality assessment measures. Presented group supervision didactic to peer providers: "Fundamentals of Dialectical Behavioral Therapy."

1/2012 to 5/2012 **PRE-PRACTICUM: George Fox University**
LOCATION: Newberg, Oregon
SETTING: College counseling
SUPERVISORS: Mary Peterson, PhD, Jennifer Bearse, MA
POPULATION: Two adult university students
DESCRIPTION: Provided outpatient, individual, client-centered psychotherapy from initial assessment to termination. Sessions were videotaped, reviewed, and discussed in individual and group supervision.

9/2014 to 05/2015 **SUPPLEMENTAL PRACTICUM: Long-Term Psychodynamic Therapy**
LOCATION: Newberg, Oregon
SETTING: University Health & Counseling Center
SUPERVISOR: Ryan Kuehlthau, PsyD
POPULATION: Adult female
DESCRIPTION: Provided outpatient, individual, psychodynamic psychotherapy under weekly psychodynamic supervision. Read and discussed classic and contemporary psychoanalytic literature.

SUPERVISION EXPERIENCE

Summer 2016 **PSYCHIATRY RESIDENT PSYCHOTHERAPY SUPERVISION**
(Anticipated) SITE: Nassau University Medical Center, East Meadow, Long Island, New York
SUPERVISORS: Laura Lamontanaro, PsyD
SUPERVISEE: Two PGY-2 level psychiatry residents
DESCRIPTION: Provide bi-weekly hour of individual supervision to psychiatry residents practicing foundational psychotherapeutic skills for one psychotherapy case each. Resident treatment populations consisted primarily of individuals diagnosed with severe affective, characterological, and/or severe and persistently mentally ill diagnoses on an acute inpatient psychiatric unit.

Fall 2014/Spring 2015   **PEER OVERSIGHT**
SITE: George Fox University, Graduate Department of Clinical Psychology
SUPERVISORS: Rodger Bufford, PhD, Nancy Thurston, PsyD/ABPP
SUPERVISEE: One practicum I student
POPULATION: Adult University students
DESCRIPTION: Provided weekly individual supervision to practicum I student and incorporated formative and summative feedback.

Fall 2014   **ADVANCED COUNSELING GROUP**
SITE: George Fox University, Undergraduate Department of Psychology
SUPERVISOR: Kristina Kays, PsyD
SUPERVISEES: Four undergraduate students
POPULATION: Adult university students
DESCRIPTION: Provided individual and group supervision, emphasizing foundational relational and therapeutic skills, to students practicing simulated psychotherapy to one another.

TEACHING EXPERIENCE

Spring 2015   **PSYCHODYNAMIC PSYCHOTHERAPY TEACHER'S ASSISTANT**
SITE: George Fox University, Graduate Department of Clinical Psychology
PROFESSOR: Nancy Thurston, PsyD/ABPP
DESCRIPTION: Will teach foundational principles of psychodynamic theory and psychotherapy through expert videos, demonstration, guest lectures, and evaluation.

2/2015   **GUEST LECTURE: "RAINER MARIE RILKE & PSYCHOANALYTIC MUSINGS FOR PROFESSIONAL GROWTH"**
SITE: George Fox University, Graduate Department of Clinical Psychology
PROFESSOR: Nancy Thurston, PsyD/ABPP
DESCRIPTION: Guided two hour process-oriented lecture in a doctoral-level graduate course for Psychodynamic Psychotherapy. Utilized seminal works of Rainer Maria Rilke and various theologians and psychoanalysts to consolidate student conceptualizations of human behavior, psychological processes, and perceptions of growth through graduate training.

Fall 2014   **ADVANCED COUNSELING TEACHER'S ASSISTANT**
                               SITE: George Fox University, Undergraduate Department of
                               Psychology
                               PROFESSOR: Kristina Kays, PsyD
                               DESCRIPTION: Taught rogerian and foundational therapeutic skills
                               to advanced undergraduate students through demonstration, coaching,
                               group facilitation, individual video supervision, and evaluation.

RESEARCH

2/2012 to 4/2015   **RESEARCH VERTICAL TEAM**
                               SITE: George Fox University, Newberg, Oregon
                               SUPERVISOR: Mark McMinn, PhD/ABPP
                               TEAM: Ten to fifteen, 1st through 4th year doctoral students with
                               research interests in positive psychology, health psychology,
                               technology, and the integration of psychology and religion.
                               DESCRIPTION: Bi-weekly, two hour meetings to discuss, evaluate,
                               and assist team members' dissertations and collaborate on research
                               presentations.

Full Pass 6/2015   **DISSERTATION**
                               TITLE: The Effect of Technology on Therapy Alliance
                               ADVISOR: Mark McMinn, PhD/ABPP
                               COMMITTEE: Mary Peterson, PhD/ABPP, Joel Gregor, PsyD
                               STATUS: Full Pass, June 2015
                               DESCRIPTION: Conducted an experiment in which I examined how
                               clients' perceptions of therapy alliance are affected by the technology
                               used to administer outcome and alliance tracking measures, comparing
                               an innovative Apple iOS technology with a well-established paper-
                               and-pen modality.

RESEARCH PRESENTATIONS

Birch, R.F., Thurston, N., Yangarber-Hicks, N. (2015, April). *Psychoanalytic training in
    predoctoral programs: Challenges and opportunities*. Seminar proposal submitted for the
    annual meeting of the Christian Association for Psychological Studies (CAPS). Denver,
    CO.

Block, M.M., Goetsch, B.L., **Birch, R.F.**, Rodriguez, J.M., & McMinn, M.R. (2013, August).
    Research practitioner gap: Bridging the gap in anorexia nervosa treatment. Poster

presented at the annual meeting of the American Psychological Association. Honolulu, HI.

Rodriguez, J.M., **Birch, R.F.**, Galuza, T., & McMinn, M.R. (2013, August). *Religious and spiritual diversity training at explicitly religious doctoral programs*. Poster presented at the annual meeting of the American Psychological Association. Honolulu, HI.

Zarb, D.S.H., **Birch, R.F.**, Gleave, D., Seegobin, W., & Perez, J. (2013, August). *Graduate students' perceptions of ethnic and gender diversity*. Poster presented at the annual meeting of the American Psychological Association. Honolulu, HI.

Wiarda, N.R., Gerdin, T.A., Galuza, T., & **Birch, R.F.** (2013, August). *First impressions: Graduate students and clinician reactions to technology in therapy*. Poster presented at the annual meeting of the American Psychological Association. Honolulu, HI.

McMinn, M.R., **Birch, R.F.**, Galuza, T., Rodriguez, J.M., & Vogel, M. (2013, April). *A comparison of religious and spiritual diversity training at religious and other institutions*. Breakout presentation at the annual meeting of the Christian Association for Psychological Studies. Portland, OR.

SELECTED PROFESSIONAL & EDUCATIONAL EXPERIENCE

3/2016	**COMMON GROUND: NAVIGATING THE MURKY WATERS OF CULTURE, SHAME AND ABANDONMENT (LIVE SUPERVISION)** HOST: William Alanson White (WAW) Institute of Psychiatry, Psychoanalysis & Psychology PRESENTERS: Vladan Novakovic, MD, Gurmeet S. Kanwal, MD DESCRIPTION: Open house featuring live psychoanalytic case supervision between a training analyst and a candidate of the WAW Institute.
1/2016	**THE THERAPIST'S USE OF SUBJECTIVITY-IN MEMORY OF HAROLD SEARLES (LEW ARON)** HOST: Brookhaven Institute for Psychoanalysis and Christian Theology (BIPACT), Fogelsville, Pennsylvania PRESENTER: Lewis Aron, PhD DESCRIPTION: Day-long colloquium presented by Dr. Lewis Aron focused on the developmental history, professional theory, and clinical work of Harold Searles in particular reference to the use of therapist's subjectivity within the clinical encounter.
1/2016	**THE ENIGMA OF DESIRE**

HOST: Brookhaven Institute for Psychoanalysis and Christian
Theology (BIPACT), Fogelsville, Pennsylvania
PRESENTER: Galit Atlas, PhD
DESCRIPTION: Colloquium presented by Dr. Galit Atlas focused on
the understanding and clinical utilization of eroticism and sexuality
within the transference/countertransference dynamic. Case material
and discussion themes were extracted from Dr. Atlas's book, 'The
Enigma of Desire: Sex, Longing and Belonging in Psychoanalysis"
from Routledge Press: Relational Perspectives Book Series.

11/2015   **HOME AND THE POETICS OF SPACE**
                 HOST: William Alanson White Psychoanalytic Society, New York,
                 New York
                 PRESENTERS: Billie Pivnick, PhD, and award-winning architect,
                 Esther Sperber, MA
                 DESCRIPTION: Monthly colloquium focused on the psychoanalytic
                 applications to and exploration of multiculturalism and architecture.

10/2015   **WORKING (AND PLAYING) WITH UNCONSCIOUS
                 FANTASY**
                 HOST: Brookhaven Institute for Psychoanalysis and Christian
                 Theology (BIPACT), Fogelsville, Pennsylvania
                 PRESENTER: Danielle Knafo, PhD
                 DESCRIPTION: Colloquium focused on unconscious fantasy and
                 imaginative thought to address questions related to object
                 relationships, identity within the clinical dyad, and the use of such
                 material within a psychotherapy treatment.

9/2015   **PRESIDENTIAL ADDRESS: RACIALIZED SPACES: HOW DO
                 YOU STAND? 'I & I,' YOU, ME, US, WE**
                 HOST: William Alanson White Psychoanalytic Society, New York,
                 New York
                 PRESENTERS: Cleonie White, PhD, Nicholas Samstag, PhD
                 DESCRIPTION: Presidential address for William Alanson White year-
                 long, monthly colloquium series centralized on the topic of
                 psychoanalytic theory, practice, and research with a multicultural
                 emphasis.

9/2014 to Present **NATIONAL READING GROUP & LOCAL CHAPTERS**
                 HOST: Society for Exploration of Psychoanalytic Therapies &
                 Theology (SEPTT) Affiliate Home, Portland, Oregon
                 PRESENTERS: Galit Atlas-Koch, PhD, Marie Hoffman, PhD

LOCAL REPRESENTATIVES: Nancy Thurston, PsyD/ABPP, Ryan Kuehlthau, PsyD, MAT, Brooke Kuhnhausen, PhD
DESCRIPTION: First hour involves the discussion of seminal psychoanalytic articles with in-depth analysis from expert presenter across live, national video feed. Second hour involves local chapter group discussion of the psychoanalytic article.

9/2013 to 5/2015   **PSYCHODYNAMIC PSYCHOTHERAPY CONSULTATION GROUP**
CONSULTANT: Kurt Free, PhD
DESCRIPTION: Conducted and discussed de-identified clinical cases from a psychodynamic perspective monthly.

9/2014 to 6/2015   **FUNDAMENTALS OF PSYCHOANALYTIC PSYCHOTHERAPY**
SITE: Oregon Psychoanalytic Center, Portland, Oregon
INSTRUCTORS: Ann Anthony, MD, Julie Rosenberg, MD, Nancy Winters, MD, Rachael Berkeley, MSW, LCSW
DESCRIPTION: Discussed psychoanalytic theory, readings, and case presentations monthly.

1/2012 to 4/2015   **CLINICAL TEAM**
SITE: George Fox University, Newberg, Oregon
SUPERVISORS: Elizabeth Hamilton, PhD, Wayne Adams PhD/ABPP, Marie-Christine Goodworth, PhD, Nancy Thurston, PsyD/ABPP
DESCRIPTION: Presented and discussed clinical cases and psychological assessments from various clinical perspectives weekly.

4/2013 to 6/2015   **PSYCHOANALYSIS ANALYSAND**
SITE: Private practice, Portland, Oregon
PROVIDER: Licensed psychologist completing analytic certification from the Oregon Psychoanalytic Center
DESCRIPTION: Completed personal analysis in a two year commitment as a four-to-five times a week case control.

10/2014   **CLINICAL PERSPECTIVES ON PSYCHOSIS**
SITE: Onsite and online lecture series hosted by Brookhaven Institute for Psychoanalysis and Christian Theology (BIPACT), Fogelsville, Pennsylvania
PRESENTER: Brian Koehler, PhD

2013 to 2014   **EXPLORING THE CLINICAL MOMENT: LISTENING PSYCHOANALYTICALLY**

SITE: Oregon Psychoanalytic Center Affiliate Home, Portland, Oregon
DESCRIPTION: Analytic training candidates and certified analysts present case presentations and clinical vignettes to explore in group discussion in quarterly events. The institute held three free seminars that coincide with the training theme (e.g. listening psychoanalytically) for the 2013 and 2014 years.

3/2014   **EVIDENCE-BASED TREATMENTS FOR PTSD IN VETERAN POPULATIONS: CLINICAL PERSPECTIVES**
                SITE: George Fox University, Newberg, Oregon
                PRESENTER: David Beil-Adaskin, PsyD
                DESCRIPTION: Received CE qualifying presentation on clinical perspectives and relevant research regarding exposure therapy and cognitive processing therapy in the treatment of PTSD in veteran populations.

2/2014   **COLLOQUIUM: "WINNICOTT AND RELIGION"**
                SITE: Online
                HOST: Brookhaven Institute for Psychoanalysis and Christian Theology (BIPACT), Fogelsville, Pennsylvania
                PRESENTER: Stephen E. Parker, PhD
                DESCRIPTION: Web based discussion among professional psychologists and therapy practitioners evaluating the concepts and utility of author, Stephen E. Parker's book on Donald W. Winnicott (2012).

2014   **COGNITIVE PROCESSING THERAPY CERTIFICATION**
                SITE: Medical University of South Carolina: National Crime Victims Research & Treatment Center
                DESCRIPTION: Web-based, online training and certification in the treatment and theoretical understanding of cognitive processing therapy.

7/2013   **RORSCHACH IMMERSION: BASIC COURSE IN RORSCHACH**
                SITE: Massachusetts School of Professional Psychology, Boston, Massachusetts
                INSTRUCTOR: Terrie Burda, PsyD
                DESCRIPTION: Week long intensive in the theoretical basis, administration, and interpretation of the Rorschach projective test.

4/2013	**PATHWAY TO PSYCHOANALYTIC CHANGE: CONCEPTUAL GUIDELINES FOR LISTENING, UNDERSTANDING, AND RESPONDING**
	SITE: Christian Association for Psychological Studies (CAPS) Annual Conference, Portland, Oregon
	PRESENTER: James Fosshage, PhD/ABPP
	DESCRIPTION: Workshop presentation reviewing theory and neuroscientific research to explore mental models of change within the therapy encounter.

2/2013	**TWO-DAY MOTIVATIONAL INTERVIEWING WORKSHOP**
	SITE: George Fox University, Newberg, Oregon
	PRESENTER: Michael Fulop, PsyD/MINT Certified
	DESCRIPTION: Two all-day training workshops focused on key theory, research, and clinical techniques of motivational interviewing.

1/2013	**AFROCENTRIC APPROACHES TO CLINICAL PRACTICE**
	SITE: George Fox University, Newberg, Oregon
	PRESENTERS: Dannette Haynes, LCSW, Marcus Sharpe, PsyD

10/2012	**SEXUAL IDENTITY & TREATING GENDER VARIANT CLIENTS**
	SITE: George Fox University, Newberg, Oregon
	PRESENTER: Erica Tan, PsyD

SELECTED EXTRAMURAL CONFERENCES

4/2016	**APA DIVISION OF PSYCHOANALYSIS (39) SPRING CONFERENCE**
	SITE: Atlanta, Georgia
	DESCRIPTION: Attend four day spring conference focused on themes of utilizing passion for psychoanalytic theory, practice, and research toward an engaged and examined life.

4/2015	**CHRISTIAN ASSOCIATION FOR PSYCHOLOGICAL STUDIES ANNUAL CONFERENCE**
	SITE: Denver, Colorado
	DESCRIPTION: Attended three day spring conference focused on themes of clinician self-care

6/2014	**NORTHWEST ASSESSMENT CONFERENCE**
	SITE: George Fox University, Newberg, Oregon

PRESENTERS: Patrick J. Moran, PhD, Stephanie Rodriguez, Carlos Taloyo, PhD
DESCRIPTION: Received CE qualified presentations on updates to administration and interpretation of the WISC-V and Woodcock-Johnson-IV and assessing therapeutic outcomes.

4/2014   **APA DIVISION OF PSYCHOANALYSIS (39) SPRING CONFERENCE**
SITE: New York City, New York
DESCRIPTION: Attended four day spring conference focused on themes of conflict.

July/Aug 2013   **AMERICAN PSYCHOLOGICAL ASSOCIATION 2013 ANNUAL CONVENTION**
SITE: Honolulu, Hawaii

4/2013   **CHRISTIAN ASSOCIATION FOR PSYCHOLOGICAL STUDIES ANNUAL CONFERENCE**
SITE: Portland, Oregon
DESCRIPTION: Attended three day spring conference around themes of cross-cultural care and counsel.

SERVICE & VOLUNTEER EXPERIENCE

2013-2014   **OUTREACH & DEPARTMENT ADVOCACY**
SITE: George Fox University, Graduate Department of Clinical Psychology, Newberg, Oregon
DESCRIPTION: Met with prospective PsyD program applicants to discuss program and goodness-of-fit.

2012-2014   **PEER MENTOR**
SITE: George Fox University, Graduate Department of Clinical Psychology, Newberg, Oregon
DESCRIPTION: Milieu counsel and academic support for incoming 1st year PsyD students.

2011-2013   **SERVE DAY: JULIETTE'S HOUSE**
SITE: Juliette's House, McMinnville, Oregon
DESCRIPTION: Fulfilled annual day-long commitments dedicated to improving the grounds and facility for a child abuse intervention center.

10/2011   **COMPASSION CLINIC VOLUNTEER**

SITE: Tigard High School, Tigard, Oregon
DESCRIPTION: Annual, rotational community event that provides
meals, medical, dental, and chiropractic care-services for underserved
and underinsured members of the larger community.

2009-2010   **L'ARCHE LIVE-IN ASSISTANT**
SITE: L'Arche Irenicon, Non-Profit Organization, Haverhill,
Massachusetts
DESCRIPTION: Provided full-time live-in assistance, behavioral and
relational treatment, and community service to a faith-based
organization dedicated to enhancing the quality of life of and
developing supportive, relational communities around fifteen core
individuals with severe developmental and intellectual disabilities.

Fall/2007   **WALK IN THE LIGHT, NPO., VOLUNTEER**
SITE: Walk in the Light, Non-Profit Organization, Pietermaritzburg,
South Africa
DESCRIPTION: Participated in the distribution of hygienic and
nutritional necessities, aiding with transportation to and from medical
clinics, grounds keeping for individuals with disabilities and
chronically debilitating health conditions, and leading educational
groups for youths.

2004-2006   **HOUSING PROJECTS VOLUNTEER**
SITE: AMOR Ministries, Tijuana, Mexico
DESCRIPTION: Participated in four week-long trips committed to the
fundraising and construction of viable housing and microeconomic
structures for qualifying families.

SCHOLARSHIPS & AWARDS

2016 to Present   **DIVISION 39 SCHOLARS PROGRAM**
AWARDER: Division of Psychoanalysis (Div. 39) of the American
Psychological Association
DESCRIPTION: Awarded to new and young clinicians of all
backgrounds with interest in psychoanalytic theory and therapy.
Combines both fiscal aid, professional benefits, and mentoring.

201-2015   **MULTICULTURAL COMMITTEE DIVERSITY
SCHOLARSHIP**
AWARDER: George Fox University, Newberg, Oregon
DESCRIPTION: Awarded for trainees of an ethnically diverse
background who make outstanding contributions to a multicultural

understanding of psychology within the community at George Fox University.

2009-2010	**SEGAL AMERICORPS EDUCATION AWARD** AWARDER: AmeriCorps, Haverhill, Massachusetts DESCRIPTION: Awarded for the completion of a substantial national service with L'Arche USA designated to AmeriCorps alumni seeking postsecondary education opportunities.

PROFESSIONAL AFFILIATIONS

2016 to Present	**Society for Exploration of Psychoanalytic Therapies & Theology (SEPTT)** STUDENT AFFILIATE
2013-2015	**Student Council Representative** GENERAL MEMBER OFFICE (2014-2015) SECRETARY OFFICE (2013-2014)
2014 to Present	**International Association for Relational Psychoanalysis and Psychotherapy,** STUDENT AFFILIATE
2013 to Present	**American Psychological Association, Division 39 Psychoanalysis** STUDENT AFFILIATE
2012 to Present	**American Psychological Association** STUDENT AFFILIATE
2014 to 2016	**Christian Association for Psychological Studies** STUDENT AFFILIATE
2011-2015	**Multicultural Committee Representative** LEADERSHIP & ADMINISTRATION SUBCOMMITTEE (2014-2015) TRAINING & AWARENESS SUBCOMMITTEE (2013-2014) RESEARCH SUBCOMMITTEE (2011-2013)
2014 to 2015	**Gender and Sexuality Consultation Committee Representative** GENERAL MEMBER

REFERENCES

Laura Lamontanaro, PsyD
Director of Psychology Training and Internship Nassau University Medical Center
Department of Psychiatry and Behavioral Sciences, East Meadow, New York
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Nancy Thurston, PsyD/ABPP
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