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Working Alliance in Online Therapy as Compared to Face-to-Face Therapy: Preliminary Results

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ABSTRACT

Online therapy, defined as the provision of mental health services through the Internet, is a growing field that has sparked an abundance of interest and controversy. A primary concern in the practice of online therapy is whether a working alliance, considered a central component of successful therapy, can develop when participants are geographically separated. Working alliance scores were compared between a small, primarily female sample of online therapy consumers and a representative sample of traditional face-to-face therapy clients. Results revealed significantly higher means on the goal subscale and composite score of the Working Alliance Inventory in the online sample, suggesting that a working alliance can be adequately established in therapy delivered online. No significant differences in the level of working alliance were found within the online therapy sample with respect to modality of communication, client presenting problem, or therapist. Themes from comments suggest the importance for participants of the disinhibiting effects of the medium.

INTRODUCTION

RECENT RESEARCH[3] indicates that more than 14% of American adults with Internet access go online to find mental health information. Since at least 1995,[4] many have also used the Internet as a medium through which to receive mental health services. Although empirical research regarding the effectiveness of online therapy is nascent, preliminary results are encouraging, with several published studies finding similar outcomes between traditional, face-to-face therapy and online therapy.[5–7] Positive outcomes in both audio/video and text-based computer-mediated therapy have been found for a number of specific presenting problems, including anxiety,[5] posttraumatic stress disorder,[8] eating disorders,[9] and panic disorder with agoraphobia.[10] While most of these studies have focused on individual counseling, improvements have also been noted in online group settings.[7]

Despite growing evidence of effectiveness, potential advantages and disadvantages to online therapy continue to be vigorously debated and discussed[11–13] and include a range of ethical, legal, and clinical issues. One of the primary clinical concerns is the possible difficulty, or even inability, for therapists and clients to establish a strong therapeutic relationship in the absence of nonverbal cues.

This emphasis on the relationship as an important outcome variable is grounded in a well-established body of research. Lambert's common factors research[14] suggests that relationship factors are the single largest variable over which therapists have some control, accounting for approximately 30% of therapeutic

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outcome across therapist theoretical orientations. Although the therapeutic relationship has been operationalized in a variety of ways, most research in the past 20 years has favored the working alliance construct, which can be broadly defined as collaboration between therapeutic participants to facilitate healing.[15] Horvath and Symonds[16] conducted a meta-analysis of 24 studies relating the quality of working alliance to outcome. Across a variety of studies using different treatments, therapist theoretical orientations, and alliance measurement devices, they found a combined effect size (Pearson's *r*) of 0.26, showing a small to moderate association between alliance and outcome.

Working alliance can be measured from the perspective of clients, therapists, and independent observers, but research[16–19] has consistently shown the strongest correlation between clients' view of working alliance and outcome. While it appears that type and severity of clients' pretherapy symptomatology is unrelated to establishment of alliance,[20,21] quality of past relationships does seem to have an impact, as clients who have had a history of difficulties in interpersonal relationships are less likely to develop strong alliances.[21,22] Similarly, therapists' ability to foster a strong emotional bond in therapy is mediated by the extent to which their own interpersonal relationships and skills are well established.[23] In addition, highly motivated clients, who enter counseling with the expectation that they will need to assume personal responsibility for doing the work of therapy, are more likely to form a strong working alliance.[24] Research is mixed, but it appears that experienced therapists may be slightly more skilled at cultivating high levels of working alliance.[23,25]

Given its importance, it is understandable that there is concern about how well alliance can be established online. Indeed, if the absence of nonverbal cues impairs relationship development, it is likely that the future of the Internet as a medium for delivery of psychological services will be limited to information provision, at least until videoconferencing is more widely available. Yet both research and anecdotal data suggest that strong and lasting relationships are being formed online.

For instance, in one of the earliest studies of online relationships, Walther and Burgoon[26] found that relationship development in a computer-mediated sample approximated that of a face-to-face sample. More recently, Parks and Roberts[27] conducted a study of relationship development in on-line, real-time, text-based virtual environments called MOOs (Multi-User Dimensions, Object Oriented). They found that 93.6% of their sample had formed ongoing personal relationships that they identified as either close friendships, friendships, or romantic relationships. A comparison of members' off-line relationships to their on-line relationships revealed no differences in terms of the levels of breadth and depth that were achieved.

Miller and Gergen,[28] in a study of exchanges occurring on an electronic bulletin board devoted to the topic of suicide, found the most frequent forms of discourse (in order of frequency) to be empathic understanding, support, and gratitude for responses. Similarly supportive communities have also been found in a sports injury support group[29] and an online women's mailing list.[30] Finn[31] studied online self-help groups for individuals with disabilities and found that participants consistently provided supportive, empathic, and therapeutic responses, enabling members to connect and form a community that would not have otherwise been possible.

In one of the most comprehensive research efforts studying relationship formation on the Internet, McKenna[32] conducted four experimental and descriptive studies and consistently found evidence of intimate relationship development online. In one project, McKenna randomly selected ten newsgroups on the Internet and solicited participants for in-depth interviews. Of the 30 participants (57% female), 51% of males and 60% of females transcended their exclusively online relationships and met face-to-face, 23% of males and 21% of females had an affair, and 3.8% of males and 7.5% of females eventually married partners they initially met online, demonstrating that significant relationship formation occurred in this sample. Like Parks and Roberts,[27] McKenna found no significant differences in the depth or breadth of interactions between participants' online and offline friendships.

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Although a thorough description is beyond the scope of this paper, McKenna[32] hypothesized that the lack of gating features (i.e., normal barriers to friendship due to a variety of elements such as physical appearance and geographic location), accompanied by anonymity of participants, allow many Internet-based relationships to form very quickly and become closer and deeper than "real life" friendships. Anonymity, or perceived anonymity, may foster intimacy by increasing the amount of personal, self-disclosure in friendships on the Internet, where the fear of rejection that may prevent disclosure in face-to-face relationships does not exist. In short, people are often more frank when they feel anonymous, as many do over the Internet, and this leads indirectly to greater intimacy.

In an intriguing finding that may provide a clue to the temperament of some who seek counseling online, McKenna provides evidence to counter the claim that Internet use increases loneliness and isolation. Instead, she found that those who are already lonely and socially anxious and who have difficulties establishing face-to-face relationships, are more likely to develop relationships on the Internet. Rather than causing loneliness and isolation, the Internet seems to provide an outlet that allows those who are lonely and socially anxious to connect with others in a safe, controlled environment. In addition, the friendships formed over the Internet are frequently integrated into users' real lives, decreasing loneliness and social anxiety and enhancing social skills.

The cumulative results of research on Internet relationship development indicate that relationships are frequently formed online and that they are as strong and viable as their offline counterparts. In addition, many, if not most, of the relationships developed on the Internet occur through text-based mediums, often considered the least expressive mode of communication online. It is likely that many of these same elements (e.g., empathy, support, and a readiness to self-disclose) that develop informally and foster deep and intimate relationship formation in online environments, will enable therapists and clients to establish a robust working alliance in therapy. Consequently, we hypothesized that working alliance levels in a sample of participants who were receiving counseling online would not be significantly different from a representative sample of face-to-face therapy recipients.

MATERIALS AND METHODS

Participant recruitment

Participants were recruited with the assistance of online therapists in one of two ways: through a link posted on therapists' web pages or through an e-mail announcement sent by therapists. Therapists were found by browsing lists of online therapists, performing Internet searches, and through referrals. One hundred individual therapists and group practices were contacted by e-mail and asked to inform clients about this research opportunity. In addition, several posts explaining the research project and asking therapists' help in recruiting clients were made to e-mail lists, including the general and members-only groups hosted by the International Society for Mental Health Online (ISMHO). A total of 16 therapists agreed to inform their clients, but participant responses were limited to one male and four female therapists (one Ph.D., three master's level, and one master's student) operating from a range of theoretical orientations. Clients recruited for participation were given a link to the home page for the research project (www.lclark.edu/~jecook) and a user name and password unique to their therapist.

Participants

Participants were one male and 14 female recipients of online therapy ranging in age from 19 to 80 years (M = 41.40; SD = 15.99). While the majority were United States citizens (53.3%), one-third (33.3%) were Canadian, due to the presence of a Canadian counselor. One participant listed the Philippines as the country of citizenship, and one did not indicate citizenship other than not being an American citizen.

Participants were primarily white and tended to be well-educated; all participants had at least a high school diploma or GED,

and the majority had a college or graduate degree. Participant income was spread across all response choices with most reporting an annual income of $25,000–39,999. Weekly time spent online ranged from less than 1 hour to more than 20 hours, with the majority (60%) indicating that they spent between 1 and 10 hours online per week.

All participants in this sample received individual counseling and communicated with therapists through a text-based medium—either e-mail or chat. A third of the sample also reported communicating with therapists through a second modality, three using e-mail, one using chat, and one using audio conferencing. All participants who indicated that chat was their primary mode of communication also used e-mail as a secondary method. Most participants were seeking counseling for relationship issues (40%) and depression (20%; Table 1).

Clients were asked to complete the WAI immediately after the third session, but preliminary results indicated a ceiling effect for number of sessions, with all clients answering "more than three," the highest possible answer choice. As a result, we added answer choices to this question after data collection had begun, making it impossible to accurately determine the average number of sessions clients had received, although the range was from one session to more than five.

Table 1. Participant Characteristics

	n	%
Sex		
Male	1	6.7
Female	14	93.3
Race		
White	14	93.3
Filipino	1	6.7
Nationality		
United States	8	53.3
Canada	5	33.3
Philippines	1	6.7
Other	1	6.7
Primary modality used		
E-mail	12	80.0
Chat	3	20.0
Secondary modality used		
None	10	66.7
E-mail	3	20.0
Chat	1	6.7
Audio conference	1	6.7
Presenting problem		
Depression	3	20.0
Anxiety	1	6.7
Relationship issues	6	40.0
Family issues	1	6.7
School issues	1	6.7
Grief/bereavement issues	1	6.7
Other	2	13.3
Weekly time spent online		
Less than 1 hour	1	6.7
1–5 hours	5	33.3
6–10 hours	4	26.7
11–20 hours	3	20.0
More than 20 hours	2	13.3
Education		
High school diploma/GED	1	6.7
Some college	5	33.3
College degree	6	40.0
Some graduate school	1	6.7
Graduate degree	2	13.3
Income		
Under $25,000	3	20.0
$25,000–$39,999	5	33.3
$40,000–$54,999	4	26.7
$55,000–$70,000	2	13.3
Over $70,000	1	6.7

Measures

Working Alliance Inventory. Although there are a variety of alliance measurement instruments, only the Working Alliance Inventory[1,2] (WAI) was designed to avoid any specific theoretical bias and to apply across theoretical orientations. Based on the work of Bordin,[33] the WAI consists of a measure of overall alliance, as well as three subscales: tasks, bonds, and goals. The tasks dimension refers to the collaboration between therapeutic partners on specific, technical, in-session behaviors and techniques (e.g., guided imagery, role plays, exposure therapy). Goals refers to the degree that therapist and client agree on the desired outcomes of therapy. The concept of bonds is similar to the empathy construct. It refers to the human relationship between therapist and client in which trust and attachment are formed so that the intimate work of therapy can progress.

The WAI is a 36-item self-report questionnaire with 12 questions in each subscale that respondents answer on a fully anchored seven-point Likert scale from never to always. Using a multitrait-multimethod analysis, Horvath and Greenberg[1] found good construct validity and high internal consistency on the compos-

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ite score (0.93 on the client form) as well as good internal consistency estimates for the subscales (0.85–0.88 on the client form). Kokotovic and Tracey[21] found even higher subscale reliability estimates in their sample ranging from 0.88 to 0.91 on the client version. Reliability coefficients from the current study were slightly lower than those found elsewhere, with a composite alpha of 0.86 and subscale scores of 0.59, 0.70, and 0.76 for tasks, bonds, and goals respectively. Studies that have compared the WAI with other working alliance instruments[17,19,34] have found high intercorrelations among the measures, providing additional support for its construct validity.

Although the WAI attempts to measure three distinct constructs (tasks, bonds, and goals) as hypothesized by Bordin,[33] factor analysis has not yielded clear evidence of discrete delineations between the subscales. Both confirmatory[35] and exploratory[36] factor analysis have revealed that the composite score is the most salient measurement of working alliance. In particular, Hatcher and Barends[36] found that the goals and tasks subscales grouped together, indicating a large degree of overlap between these two constructs. This research suggests that interpretation of the WAI yields more meaningful results from the composite score than from the individual subscale scores.

In a meta-analysis of eight studies that used the WAI to investigate the relationship between working alliance and outcome, Horvath[34] found an average weighted effect size of 0.33 for the client-based measures, but estimated that the actual size may be closer to the upper bound of the 95% confidence interval (0.43) due to the use of a conservative procedure to estimate effect size. These figures suggest a moderate link between clients' perception of the working alliance as measured by the WAI and therapeutic outcome, similar to alliance results obtained elsewhere.[14,16,36]

Meta-analysis has also revealed that early alliance is slightly more predictive of outcome than alliance measures taken as an average across all sessions or taken towards the middle of treatment. Eaton et al.[37] found that level of alliance, regardless of the length of therapy, was established within the first three sessions. Accordingly, most alliance research has used the completion of the third session as the time to have participants complete alliance measurements.

Demographics questionnaire. In addition to the WAI, participants completed 11 demographic-type questions in order to obtain general, descriptive information. Examples of these questions included participants' sex, age, income level, education level, presenting problem, and method of communication with therapists (e.g., chat, e-mail, videoconferencing).

Additional comments. Upon completing the demographics questionnaire and the WAI, participants were given the opportunity to type comments about their experience of receiving counseling online.

Procedure

At the home page, participants had the choice of beginning the study, or viewing several other pages with background and contact information, as well as a link where results of the research were posted when the study was complete. Those who chose to participate were directed to the informed consent page and provided with general information about the nature of the study, a definition of working alliance, and a description of the questionnaires. Information in the informed consent ensured participants of their anonymity, unless they entered an optional $50 raffle, in which case they were asked to provide an e-mail address that was treated confidentially and deleted upon completion of the study. Participants were given information about potential risks and benefits to participating in the study and informed of their freedom to withdraw consent at any time and immediately exit the study by using a link at the bottom right of each page. Disagreeing to the informed consent returned individuals to the home page, while agreeing allowed participants to continue, redirecting them to a Microsoft Windows 2000 Professional system using an Internet Information Systems 5 web server. A security dialogue box (based on Windows NT

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File System [NTFS] technology) would now open, asking participants for their user name and password. The site was password protected both to reduce the possibility of erroneous responses from individuals not eligible to participate and to track participant data based on referring therapist. After entering a correct user name and password, the demographics questionnaire was displayed and participants could begin. In order to ensure complete responses, a JavaScript application was used on this page and on the 3 pages of the WAI to inform participants if they had left any questions unanswered. Unless they chose to exit the study, participants could not continue without answering all the questions.

Upon completion of the demographics page, participants were directed to the instructions for the Working Alliance Inventory. Consistent with the suggestions of Rosenfeld and colleagues,[38] the instructions and WAI questions were transcribed online as accurately as possible from the paper and pencil form. Participants were presented with the 36 questions of the WAI across three web pages. When they had finished, participants were able to enter comments about online therapy in a text box, although completion of the comments page was optional and users were not prompted to enter information if they left it blank.

In order to reduce or eliminate data entry errors, participant responses were automatically coded into number values (where appropriate) and entered into a Microsoft Access 2000 database, using Active Server Page (ASP) technology. Participants' Internet Protocol (IP) address and the date and time of data entry were also entered into the database in order to check for multiple submissions by the same respondent, a possible disadvantage to conducting research over the Internet noted by several researchers.[39–41] Upon completion of the study, results were imported from Access into the Statistical Package for the Social Sciences (SPSS 10) for statistical analysis.

RESULTS

The face-to-face comparison group was the small sample (N = 25) on which the WAI was initially validated.[1,2] To assess the representativeness of the scores from this sample, we computed the standard error of measurement (SEM) and created a confidence interval with which to compare scores from four other studies that used the WAI (combined N of 182). Comparing the results of the four studies to the initial validation sample revealed that 11 of the 12 subscale scores fell within one SEM of the initial validation scores. The other subscale, from the study with the smallest sample (N = 22), was slightly outside the 68% confidence interval, but was within the 95% confidence interval, or approximately two SEMs. These results indicate that despite the lack of a large sample, scores on the initial validation of the WAI nevertheless seem to be representative.

Single sample t tests were used to conduct the primary analysis, in which working alliance composite and subscale scores from the online sample were compared to scores from the representative sample of face-to-face therapy clients (for scores, see Table 2). Subscale and composite scores were all higher for the online therapy sample, although only the goal ($t_{(14)} = 3.039$; $p < 0.01$) and composite ($t_{(14)} = 2.307$, $p < 0.05$) scores were significantly different from the scores in the face-to-face sample. Given the small sample and corresponding lack of statistical power, the effect sizes for the significant t scores were relatively large at $d = 0.79$ and $d = 0.60$ for the goal and composite scales respectively. Post-hoc power analyses were conducted on the scales that did not reach significance, using G*Power.[42] These results ranged from 0.22 to 0.33, indicating a large potential for type II error.

Table 2. Sample Means and T Test Comparisons between Online Therapy and Face-to-Face Samples

	Sample means			
WAI scale	*Online therapy (N = 15)*	*Face-to-face (N = 25)*	t^a	p
Task	70.33	68.6	1.260	0.228
Bond	72.47	69.6	1.627	0.126
Goal	72.27	67.3	3.039	0.009
Composite	215.07	205.5	2.307	0.037

[a] $df = 14$.

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Additional comparisons were conducted to determine whether there were differences in working alliance based on modality of communication. Although participants who used chat for the primary mode of communication reported consistently higher means on the WAI, no significant differences were found. Results among those who used a secondary modality also revealed a trend of higher (but again nonsignificant) means on all WAI subscales and the composite score (Table 3).

Given the small numbers in each category, presenting problems were combined into three groups for statistical analysis: depression and anxiety, relationship issues, and other (school issues, family issues, grief/bereavement, and dependency issues). One-way analysis of variance revealed no significant differences or trends on WAI subscale or composite scores based on type of presenting problem (Table 4).

Additional analyses, conducted to test for differences based on other variables, revealed no significant differences in working alliance between therapists, participant weekly time online, participant education, participant income, or participants' nationality.

Comments

Nine of the 14 participants entered additional comments at the end of the questionnaire. Seven themes emerged from an analysis of the comments. These themes are described in greater detail below along with the number of participants making that type of comment (in parentheses): viability (six), disinhibition (five), cost (three), travel (three), client/counselor relationship (three), advantages of written communication (three), and convenience and flexibility (two).

Viability. This theme refers to participants' feeling that online therapy is a viable method for receiving mental health assistance. Six participants explicitly stated that they believe online therapy to be effective.

Disinhibition. This theme was discussed in the most depth. Participants described the sense of freedom they felt to express themselves online without embarrassment or fear of judgment from therapists. Many expressed the stress they typically feel in a face-to-face therapy situation and indicated that, for the first time, they were able to be completely honest and open with a therapist.

Cost. Participants who discussed cost were uniformly pleased with the affordability of online therapy.

Travel. These comments focused on the advantage of online therapy for those who have mobility challenges or who live in an isolated region.

Client/counselor relationship. Two participants discussed the strength of the relationship with their therapists, noting the care and respect their therapists demonstrated. Another participant indicated the importance of establishing an honest relationship with the therapist.

Advantages of written communication. These comments focused on participants' perceptions of the unique advantages to text-based

TABLE 3. WORKING ALLIANCE MEANS AND STANDARD DEVIATIONS BASED ON MODALITY

	Primary modality				*Secondary modality*			
	E-mail (n = 12)		*Chat (n = 3)*		*None (n = 10)*		*Other[a] (n = 5)*	
WAI scale	*Mean*	*SD*	*Mean*	*SD*	*Mean*	*SD*	*Mean*	*SD*
Task	69.75	4.94	72.67	7.37	68.80	4.59	73.40	5.86
Bond	70.92	6.52	78.67	4.51	70.50	7.11	76.40	4.51
Goal	71.00	5.89	77.33	6.43	70.70	6.11	75.40	6.15
Composite	211.67	14.47	228.67	17.50	210.00	14.82	225.20	14.70

[a]Other consists of e-mail ($n = 3$), chat ($n = 1$), and audio conferencing ($n = 1$).

Table 4. Working Alliance Means and Standard Deviations Based on Client Presenting Problem

	Depression and anxiety (n = 4)		*Relationship issues (n = 6)*		*Other[a] (n = 5)*	
WAI scale	*Mean*	*SD*	*Mean*	*SD*	*Mean*	*SD*
Task	74.25	8.42	69.17	3.54	68.60	3.05
Bond	74.00	8.29	74.00	2.28	69.40	9.34
Goal	76.00	4.69	72.33	6.95	69.20	6.14
Composite	224.25	20.79	215.50	11.64	207.20	15.72

[a]Other includes school issues, family issues, grief/bereavement, and dependency issues.

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therapy. Participants appreciated the ability to re-read messages from therapists and noted that this allowed for greater cognitive processing than verbal communication. Participants also described the greater ease they felt to express thoughts and feelings through writing.

Convenience and flexibility. Two participants described the convenience and flexibility afforded by online therapy, including the absence of scheduling issues, lack of travel time and parking challenges, and not needing to be concerned with personal grooming. One participant noted the advantage to being able to communicate intimate thoughts when most personally appropriate.

DISCUSSION

Results from this small, self-selected sample of online therapy consumers should be interpreted and generalized cautiously. Despite limitations, however, working alliance levels demonstrate that participants felt a collaborative, bonding relationship with therapists, and comments overwhelmingly indicated participants' belief that online therapy was a positive experience with unique advantages over face-to-face counseling.

Based on previous research documenting the depth and breadth of online relationship development,[27,30,32] we predicted that working alliance levels from the online sample would be comparable to the face-to-face population. If this was incorrect, and alliance is not able to be adequately established online, we would have expected WAI scores from the online sample to be lower than those from the face-to-face sample. In fact, results revealed that all WAI subscales and the composite score were higher in the online sample. Exceeding expectations and despite low power, results on the composite scale and goal subscale of the WAI were significantly higher than those from the representative sample of face-to-face clients. These findings strongly suggest that, at least among those who find online therapy to be an appealing method of receiving mental health assistance, working alliance, and perhaps most importantly, an empathic relationship, can be strongly established regardless of modality of communication.

While all WAI subscales were higher in the online sample, only the therapeutic goals subscale was significantly higher than the face-to-face comparison group. Although subscale scores should be interpreted with caution, it may be that online therapy can be a particularly effective method for therapeutic participants to clearly establish and agree upon the outcomes of therapy. Upon reflection this result may not be surprising, given that the easily accessible, written record of agreed-upon goals in text-based therapy leaves less room for ambiguity than a verbal agreement in traditional therapy. Online participants' relatively low rating of the task subscale in comparison to the other subscales from the online sample (although still higher than the face-to-face sample) may be explained by the smaller role of traditional in-session tasks in asynchronous therapy.

Despite the absence of significant differences in working alliance level between communication modalities, a trend was observed indicating that participants who corresponded with therapists using more than one modality

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consistently had higher composite and subscale scores on the WAI. It is possible that the limited sample size in this study masked significant effects about modality that may be found in a larger sample. The impact on relationship development of communicating in multiple formats, especially of a text-based nature, has the potential to be an important area for future research.

As expected, the type of problems for which participants sought help did not significantly impact working alliance scores. This finding is similar to previous research on working alliance development in face-to-face therapy showing that severity and type of client presenting problems are unrelated to working alliance.[20,21]

The overwhelming majority of participants in this study were female, consistent with previous research that has found that more women than men use the Internet for mental health information and services.[4,43,44] Interestingly, participants were well-represented at all income levels, in contrast to surveys that have shown those with higher incomes to be over represented in the Internet population.[3] Participants did, however, tend to be highly educated.

Lack of control presented difficulties in this study that may have affected sample selection and results. For instance, many participants had received more than three sessions when they completed the questionnaires, even though they were asked to complete them after the third. However, Horvath and Symonds'[16] finding that alliance is fairly stable when taken as an average over the course of therapy, suggests that results may not have been greatly affected. It is also unclear how systematically participating therapists informed clients of this research project. Bias may have been introduced by the method therapists used to notify clients, although this was probably less of a factor for those who posted notifications on their web sites.

Online therapy is not for everyone and many will continue to prefer and need face-to-face counseling. Previous research has indicated that individuals with certain personality characteristics, such as introversion,[45] and particular problems, such as panic disorder and agoraphobia,[10] may prefer the perceived anonymity and sense of control the Internet offers. These findings are supported by participants' comments that disinhibition was a major attraction to online therapy. The importance for participants of the disinhibiting effects of online therapy also suggests that the population who seeks online therapy may differ from the general therapy-seeking public. Those who go online for therapy may, in fact, share more in common with the population described by McKenna.[32] Many in McKenna's sample tended to be uncomfortable in traditional social situations and turned to the Internet to connect with others. For the individuals in the current study, it is conceivable that online therapy, in addition to frequently being more affordable, is more conducive to strong therapeutic relationship development than face-to-face therapy. The interaction between online relationship development and personality type is a fertile area for future research.

Large-scale research projects examining both working alliance and treatment outcomes are necessary to increase the validity of research into online counseling. It will also be important for future research to obtain a wider cross section of therapists willing to participate. Nevertheless, this project adds to a rapidly developing body of research indicating that the delivery of mental health services through the Internet is both plausible and effective and that the empathic bond, central to working alliance and successful outcome, can occur when therapeutic participants are geographically separated.

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