

THERAPIST AND ADOLESCENT BEHAVIOR IN ONLINE THERAPY

A Dissertation

by

LISA MARIE CEPEDA

Submitted to the Office of Graduate Studies of  
Texas A&M University  
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

August 2008

Major Subject: Counseling Psychology

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Approved by:

Co-Chairs of Committee,	Dan F. Brossart Collie W. Conoley
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## ABSTRACT

Therapist and Adolescent Behavior in Online Therapy. (August 2008)

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A literature review on the potential of computer-mediated communication (CMC) as a medium for conducting psychotherapy via the Internet revealed that CMC may mediate interpersonally rich interactions if participants are allowed sufficient time and repeated opportunities (anticipate future communications) to exchange information and build relationships. To examine the extent to which the process of online therapy resembles face-to-face therapy, online therapy transcripts were examined through a molecular approach and the results were compared to the extant, psychotherapy processes literature.

The participants were six dyads formed by college graduate students enrolled in a clinical practicum course and their online adolescent clients. The clients were high-school freshmen and sophomores referred by their school counselors through the Gulf Coast GEAR UP Partnership Project. Trained undergraduate psychology majors coded therapist and client online behavior according to two well established and validated coding methods, the Helping Skills System (HSS) and the Client Behavior System (CBS; Hill & O'Brien, 1999). Although levels of client overall output (grammatical

units) remained fairly constant throughout the course of therapy, the ratio of productive to non-productive output per session increased as a function of number of sessions.

Using hierarchical linear modeling (HLM) methodology, the results revealed that therapist facilitating skills (approval and reassurance, restatements and rephrasing, and reflection of feelings) predicted higher client productive output, whereas interpretations and informative statements predicted lower client productive output. The results confirmed that online therapy can lead to productive therapist-client interactions and that the associations between these interactions are similar to the associations found in face-to-face therapy interactions.

## DEDICATION

I thank my best friend and love, Antonio Cepeda-Benito, who has assured me all along that he carries my heart in his heart. In addition, I thank my four *bambinos*, Agustín, Anik, Alexa and Marco for their steadfast support and love.

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## INTRODUCTION: COMPUTER MEDIATED COMMUNICATION

Our grandparents would be baffled to hear that caring, trust and genuineness cannot be expressed and felt through writing. So too would generations of authors and readers tell you that literary works can move us to tears and laughter (Murphy & Mitchell, 1998). However, psychologists often express serious concerns about whether psychotherapy is possible within a text-only medium (Murphy & Mitchell). Such apprehension is natural because in traditional face-to-face therapy (FFT) nonverbal cues, such as voice tones, body language and physical presence, foster insight and understanding and facilitate the development of the therapeutic alliance (Walther, 1992). Thus, given that the therapeutic alliance is such an essential component of the healing process in psychotherapy (Horvath & Symonds, 1991), knowing whether and how the therapeutic alliance happens in computer-mediated communication (CMC) is fundamental. For the purposes of the present paper, CMC refers to the process by which people exchange information using computer terminals to send and receive messages (e.g., e-mail, internet chat rooms, secured networked computers, etc.).

Communication between individuals through a computer network happened spontaneously. As large computers were linked to one another for security and data replication purposes, the individuals controlling the computer soon realized they could communicate with each other by sending simple messages through the networks they

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This dissertation follows the style of *Journal of Counseling Psychology*.

maintained (Walther, 1996). This idea evolved and computer networks began to be used to coordinate long-distance emergency tasks and, soon thereafter, individuals began to wonder whether CMC could replace travel to meetings by group members, and even whether meetings using CMC could surpass the effectiveness of face-to-face communication (FFC) (Walther). Therefore, early investigations about CMC studied the effectiveness and social character of CMC interactions (see Hiltz & Turoff, 1978; Rapaport, 1991; Rheingold, 1993). For example, researchers have studied users' online behaviors and their attitudes toward the medium and compared the amount of relational and affective interactions that occurred spontaneously in CMC and FFC (Rice, 1983, 1984; Rice & Shook, 1990). These studies found that CMC was appropriate for the exchange of task-oriented information but fell short when it came to interpersonal communication mainly due to the medium's absence of visual cues (Garton & Wellman, 1995; Walther, 1994).

Theorists contended that the impersonal nature of CMC was a consequence of the absence of nonverbal cues and the poor interactivity afforded by the medium (Walther, 1996). In particular, the absence of nonverbal cues, which communicate personal and emotional information, was thought to distort the interpretation of messages (Walther). These conclusions were congruent with cues-filtered-out theories of communication. For instance, Social Presence Theory (Short, Williams, & Christie, 1976) predicts that as the number of communication channels available within a medium decline, the attention paid by the user to the presence of other social participants in the interaction also decline. The result is that as social presence declines, messages become

more impersonal (Short, Williams, & Christie, 1976; Walther 1996; Rice, 1984; Steinfield, 1986). Short et al. define social presence as "the degree to which a person is perceived as a 'real person' in mediated communication" (p.65). The capacity of the medium to transmit and receive information about facial expression, direction of looking, posture, dress, and other nonverbal cues is believed to enhance social presence (Short et al.). Similarly, Information Richness Theory (Daft & Lengel, 1984, 1986) postulates that media vary in richness depending on the number of cue systems communicated, the immediacy of the feedback received and the capacity of the media to transmit natural language. Accordingly, CMC would be expected to be less personal and less socially oriented than FFC. Moreover, Information Richness Theory predicts that because nonverbal cues contribute substantially to communicate relational information, the loss of this information in a text only medium can only lead to unemotional interactions (Daft & Lengel, 1986).

### ***Emerging Perspectives***

In contrast to cues-filtered-out explanations, Walther (1996) has proposed that CMC is not as void of emotional interactions as originally thought. The Social Information Processing perspective (Walther, 1992), assumes that CMC users, like all other communicators, are driven to develop social relationships (Walther). The social information-processing model recognizes that in FFC there is more social information per unit of interaction time than in CMC because, among other reasons, non-verbal cues are unique to the former. However, proponents of the social information-processing

model posit that, with time and practice, CMC users adapt to the sole text-only channel and increase their ability and motivation to engage in relational interactions.

The early experiments compared CMC and FFC on the amount of various types of communication that occurred within a single, time-limited interaction (e.g., Burgoon & Hale, 1987). These experiments, however, failed to consider that the length of time given to carry out an interaction and the opportunity to develop relationships through repeated contacts over time could overcome the limitations of CMC (Walther, 1994; 1996). That is, whereas FFC may achieve high levels of interpersonal communication with relatively few and short interactions, CMC might require many interactions of a relatively long duration per interaction to become an effective medium for interpersonal communication. Research has shown that, given enough time, users of CMC can adapt to the text-only medium and exchange sufficient information to develop interpersonal relationships (Walther, 1993). Moreover, Walther (1994) noted that in contrast to one-shot groups, participants of longitudinal (repeated interactions over time) groups have the anticipation of future interaction. Research by Kellermann and Reynolds (1990) confirmed that the anticipation of future interaction motivated users to seek more information about the other, to act more friendly, and in essence to communicate more intimately.

Self-disclosure, the act of revealing personal information, is essential to the therapy process (Hill & Knot, 2002) and to the development of close relationships in general (Archer, 1990). Joinson (2001) has noted that self-disclosure seems to characterize CMC to a great extent. Both, anecdotal data (e.g., couples who meet and

develop romantic relationships via the internet) and scientific-based evidence support the position that CMC is a medium conducive to self-disclosure and the development of meaningful relationships. Parks and Floyd (1996) collected survey data from individuals randomly selected from Internet newsgroup participants. These authors found that 60.7% of the participants reported having developed personal relationships through CMC. Participants communicated with their on-line partners regularly, with 80% reporting that they communicated with their partners at least on a weekly basis. Their results also suggested that high levels of relational development were commonplace. About half of the personal relationships were rated high on dimensions of interdependence, breadth, depth, predictability, understanding and even commitment.

Research also suggests that in some settings, self-disclosure may be greater in CMC than FFC interactions. For example, psychiatric patients may report more symptoms and objectionable behaviors in CMC than FFC interviews (Greist, Klein & Van Cura, 1973). Likewise, individuals diagnosed with a sexually transmitted disease reported more sexual partners, more previous visits and more symptoms to a computer than to a doctor (Robinson & West, 1992). More generally, responses to electronic surveys tend to be less socially desirable and yield more negative and embarrassing information about the self than paper and pencil measures (Kiesler & Sproull, 1986). Thus, it appears that the absence of visual and auditory cues provides a certain level of anonymity that dampens the embarrassment associated with revealing secrets about the self (Rheingold, 1993).

### *Psychotherapy via CMC: Potential Limitations and Advantages*

Rochlen, Zack and Speyer (2004) identified a number of important challenges and potential shortcomings associated with conducting psychotherapy via a computer mediated context. The lack of access to nonverbal cues clearly limits, and may even make unattainable the utilization of certain techniques and approaches such as experiential psychotherapy. The absence of auditory and visual cues, as well as the impossibility for spontaneous and immediate clarification and feedback may increase the frequency and severity of misunderstandings. For example, CMC is not conducive to providing immediate feedback and reassurance, a therapeutic intervention that is especially useful with clients with low self-esteem or poor ego strength. Moreover, time delays in the interaction process would prolong the duration of misunderstandings and the client's anxiety.

Experts note that CMC requires skills that are difficult to master in addition to those required during FFC. For example, both counselor and client need to be reasonably good writers and typists and computer literate to manage the medium (Stofle, 2002; Zack, 2004). The medium appears best fitting to those clients who value written self-expression and have the creative independence it takes to support their end of the written dialogue (Mitchell & Murphy, 1998). The effectiveness of online therapy might be diminished or lost entirely with clients that are not comfortable expressing themselves in writing (Rochlen, Zack & Speyer, 2004).

Finally, the newness of psychotherapy through CMC does not provide psychotherapists the benefit of learning from the mistakes of their mentors. This concern



is particularly relevant to ethical issues in psychotherapy, including competence, and the protection of the client's confidentiality. As psychotherapists navigate uncharted waters, ethical problems might be difficult to anticipate and even identify when they happen.

Although conducting psychotherapy using CMC requires adaptation to overcome important challenges, seeming disadvantages may also become relative advantages. For example, Walther (1996) asserts that since there is no need to smile, hold-in one's waist, or look interested, CMC users can devote all their cognitive effort to language selection. Likewise, time delays in the interaction process, particularly the asynchrony of e-mail correspondence, allow users the opportunity to thoroughly think through their questions and answers to improve the quality of their communications (Harasim, 1993). That is, unlike in spontaneous communications, CMC participants can plan, and edit one's messages prior to their delivery (Hiemstra, 1982). Also, CMC creates a situation where the client is able to reflect more on their messages. The slowness of the process of writing, may allow the client to be more consistent (Murphy & Mitchell, 1998). As clients slow down in their communicating, they may become more conscious of themselves and what feelings and thoughts they wish to convey.

To compensate for the potential limitations of CMC, therapists need to be highly aware of the many factors that facilitate the development of interpersonal relationships, and become mindful of engaging in behaviors that may occur naturally and spontaneously in FFC. Short et al. (1976) observed that letting other participants know you are attending to them is crucial for promoting social presence online. For example, Eggins and Slade (1997) contend that using the "reply" button to post a message, quoting

back direct words of the message into the reply, and referring explicitly to the content of the other's message, are ways to let the other user know you are attending. Stark (1996) posited that reinforcement of the relationship is what fuels the development and maintenance of the relationship. Clearly, complimenting, acknowledging and expressing appreciation can be achieved through written text.

Building commitment is yet another ingredient salient to relationship development. Activities that build commitment are vocatives and phatics (Bussman, 1998). Vocatives are the addressing of participants by their names. Phatics communicate a mood of sociability and one's feelings rather than information or ideas. Phatic communication is nearly synonymous with social presence (Bussman). Examples of phatic communication include asking about one's health, and even talking about the weather and other trivial matters.

The expression of affect and character is important to convey genuineness and the feeling behind experiences. Users of CMC have at their disposition the same tools novelists and poets rely on: similes, metaphors, analogies, story telling, etc. A technique unique to online communication is emotional bracketing, the technique of writing relevant emotional material in brackets or parenthesis (Murphy & Mitchell, 1998). Bracketing helps the recipient clearly understand the intended tone of the words:

*It has been days now since I have heard from you Juan (concern, worry). I can only imagine that you are very busy with schoolwork and activities (wishing I could pass you in the hall at school and know you were fine by your smile).*

Textual visualization or descriptive immediacy is another online technique that helps relate emotional information. With this technique, the recipient can (is thought to) sense the sender's feelings and receive a mental image of the content of the message (Murphy & Mitchell, 1998):

If you were sitting next to me as I write this, Juan, you would see me staring at the computer screen with water in my eyes, saying out loud to myself "You are too much!!!" The fact that you studied for that math test, and redid the problems that we worked out together online, shows me how serious you are about your goal!! I wish you could see my grin because right now I find myself wanting to scoop up your letter to me and carry it in my pocket so I can reread again your great news about your math test! I wonder to myself shaking my head back and forth in happiness, "how did you make that happen"??

Emoticons, parenthetical expressions that convey body language can be achieved by using smiley (☺) or unhappy (☹) faces. The use of all "CAPS" accentuates the voice of the writer, \*asterisks\* make a point, and trailers . . . indicate a thought or feeling in transition. Different fonts may convey different moods as well as a personal preference. As the relationship develops, interacting partners are likely to learn and become accustomed to each other's online expressive style, or online personality (Fenichel, et al. 2002).

Additional advantages to online therapy include the client being able to review the solutions and techniques offered to them. Being able to re-read the content of their narratives as well as the counselors' responses gives clients the opportunity to "hear"

again encouraging words and perhaps feel better when they're feeling down. Reviewing the written material also gives clients further opportunities to find the solution to their problems. Having a record of their sessions, as proof of their active participation in their own healing, should empower the client to take ownership of their gains.

The physical distance between CMC users and the inherent absence of nonverbal cues allows participants to present themselves without potential social hindrances that are often present in FFC interactions. For example, first impressions could become more manageable because of the fewer physical distracters such as attractiveness, stylishness of clothing, office prestige or disabilities. Looks, gender, and race can be communicated in CMC but through managed self-disclosure rather than by appearance. According to Walther (1996), nonverbal cues (age, gender, race, physical appearance) contribute to establishing a power hierarchy between people. Therefore, online therapy may be conducive to decrease distractions caused by the impact of power differences between the therapist and the client (White & Epston, 1990).

Colon (1996) found advantages to having reduced communication cues in CMC. She discovered that participants in online-group therapy encountered fewer emotional distractions than members of off-line groups. Fewer emotional distracters led to higher levels of trust, disclosure and in-depth therapy. That is, the absence of nonverbal cues seems to lead to an anonymity-like state that is uninhibiting and encourages self-reflection and therapeutic expression (Suler, 2002). As the process skirts the client's explicit persona, there are no social masks to take off and clients are free to get right to the point of core issues. As the power differential is reduced, both counselor and client

are able to create a therapeutic intimacy that allows for co-authorship of client solutions and insights (Rochlen, Zack & Speyer, 2004). The presenting problems can be externalized through the process of writing whereas the online therapeutic relationship is internalized through the high degree of intimacy and honesty created by text-base self-disclosures. As previously noted, CMC allows the client to re-read and reinforce the solutions and insights contained in previous therapy sessions. Clients may have the added benefit through the online therapy communications of reflecting more on themselves and of taking more ownership of the therapeutic process. To facilitate client ownership, therapists can "cut and paste" their client's thoughts, feelings, and exploration of their problems and insights.

We must also not forget that writing about the self can be therapeutic. For example, Pennebaker (1977) has provided ample empirical evidence that writing about emotional experience is generally helpful. The practice of online therapy involves the contemplative process of writing about one's problems and conflicts, as well as the exploration for solutions and insights, most of which are rich in emotional experience.

Like telecommunication via the telephone, CMC provides the opportunity to reach people who are unable to visit a counselor due to geographical, physical or lifestyle limitations. Reese, Conoley, and Brossart (2002) found clients rated telephone counseling high on four positive dimensions, convenience, accessibility, control, and disinhibition. Convenience emerged as the most valued feature of telephone counseling, which allowed clients to receive counseling without leaving their home, a unique service availability that makes counseling services highly accessible. Participants also noted that

telephone counseling afforded them a certain degree of anonymity that allowed them to exert greater control over the process of therapy sessions, which decreased their fear of receiving counseling. For example, some of the telephone-counseling clients felt that they were less inhibited to talk about important issues over the telephone. A striking finding was that whereas at pre-treatment only 44% of the participants anticipated that telephone counseling would be helpful, at post-treatment 96% reported that they would be willing to seek counseling on the telephone again and 58% liked telephone counseling better than face-to-face counseling. Of particular note is the finding that Reese, Conoley, and Brossart (2006) found that in a sample of 186 telephone counseling clients, 96% said they would be willing to seek telephone counseling again compared with 63% who reported being willing to seek face-to-face counseling. More than half (58%) of the respondents who had experienced both telephone and face-to-face counseling preferred telephone counseling!

In summary, CMC may mediate interpersonally rich interactions if participants are allowed sufficient time and repeated opportunities (anticipate future communications) to exchange information and to build relationships (Walther, 1996). Although the absence of nonverbal cues and the asynchrony that typically characterizes CMC are potential barriers to relational conversations, these obstacles are surmountable and may even afford unique advantages over FFC encounters. That is, CMC is not necessarily devoid of emotionality. Online users can learn traditional writing techniques (e.g., metaphors), as well as online-specific skills (e.g., bracketing) to flavor their messages with feeling. In addition, asynchronous and text-only communication may

facilitate some aspects of social exchange that are conducive to the establishment of relationally rich interactions. For example, online users can review their interactions or save them to recycle words of encouragement when needed. Writing as opposed to talking, necessarily slows down the exchange of information and allows CMC users to be more thoughtful and selective in their disclosure. Finally, the absence of non-verbal cues can also be viewed as a reduction of "social-distracters" that get in the way of relational interactions.

## THE PROCESS OF INDIVIDUAL THERAPY

Research on the process of individual therapy helps explain what goes on in therapy, what works and what therapists can do to help their clients. Process refers to therapists' and clients' overt and covert thoughts, feelings and behaviors during therapy sessions (Hill & Nut-Williams, 2000). Process therapy research can focus on any or all, the therapist behaviors, the client behaviors, and the therapist and client behavioral interaction (Hill & Corbett, 1993). Process research not only facilitates an understanding of the therapist behaviors that are effective in promoting client growth and the therapeutic alliance, but process research findings also guide educators to train effective therapists (Hill & Nut-Williams).

Process research in counseling psychology began in 1938 with Frank Robinson's work (Hill & Corbett, 1993). Robinson recorded sessions with the idea of giving counselors he was unable to supervise the opportunity to hear themselves. In turn, Robinson's first doctoral student, Elias Hull Porter, Jr., developed a category system to classify counselors' and clients' behaviors (e.g. silence, reflection, interpretation). Applying Porter's category system to 10-years worth of recorded interviews, Robinson (1950) found that counselors differentially impacted their clients' verbal responses as a function of their own previous statements.

Carl Rogers is considered also a pioneer and highly influential researcher on process therapy research (Hill & Corbett, 1993). In 1957, Rogers and his students and colleagues developed measures to assess therapy processes and test Rogerian theory. For



example, Rogers found what he believed were the necessary and sufficient conditions of therapy, therapist empathy, genuineness, and unconditional positive regard, facilitated clients growing toward becoming fully functioning persons who could accept their inner experiencing (Rogers, 1957). Other counseling psychologists (Carkhuff, 1969; Ivey, 1971) expanded on Roger's ideas about the facilitative conditions of individual therapy by operationalizing them into therapist skills that could be taught (Hill & Corbett, 1993). In fact, the 1960s and 1970s gave rise to a skills training movement and a renewed interest in researching the effectiveness of the skills that has resulted in the creation of more than 30 therapist-technique evaluation measures (Hill & Corbett).

The therapist's contribution to the therapy process is studied by measuring the incidence and quality of specific intervention techniques to describe therapist behavior, discern associations between therapist and either client behaviors, process variables, or treatment outcomes (Hill & Nut-Williams, 2000). The two most common methods of assessing therapist techniques are the molecular (which examine the presence or absence of therapist techniques on a phrase, sentence, or speaking-turn level) and the molar (which examine therapist techniques globally across larger segments or sessions) (Hill & Nut-Williams). The molecular method provides a fine-grained analysis of what transpires in the therapy session and is suited for a very detailed description of the therapy process. Molecular methods most often examine verbal response modes (e.g., open question, reflection of feeling, interpretation) independently of the content of the speech (Hill, 1986). Trained judges typically determine the response modes for each sentence of therapy transcripts.

Elliott et al. (1987) compared six response-mode categorization systems and concluded that there was considerable overlap across the six systems. More specifically, Elliott et al. found that the six systems shared at least six therapist response modes: question, information, advisement, reflection, interpretation, and self-disclosure. Perhaps the most widely used therapist response mode categorization system is the Hill Counselor Verbal Response Category System (HCVRCS, Hill, 1985, 1986; Hill & O'Brien, 1999). The HCVRCS has evolved throughout the years but includes at its core nine mutually exclusive response modes: approval, information, direct guidance, closed question, open question, paraphrase, interpretation, confrontation, and self-disclosure. These categories can be either divided or combined further to increase or decrease the complexity of the categorization. Molecular investigations have found that therapist response modes vary as a function of theoretical orientation (e.g., Stiles & Shapiro, 1995), level of expertise (Nagel, Hoffman, & Hill, 1995), and client type (e.g., Cummings, 1989).

Hill, Helms, Tichenor, et al. (1988) studied the relationship between therapist response modes on client and therapist helpfulness ratings, client reactions and client experiencing levels. The therapist modes used most frequently were information giving (24%), paraphrasing (20%), closed questions (19%) and open questions (14%). The least used were interpretation (8%), approval (6%), confrontation (5%), direct guidance (5%), and self-disclosure (1%). The therapist response modes that were rated as most helpful were self-disclosure, interpretation, approval, and paraphrase. Open questions, confrontation and information were rated moderately helpful, with direct guidance and

closed questions being rated as not very helpful. Congruent with client and therapist ratings, therapist interpretations led to client responses that were desirable or productive (e.g., self-understanding, expressing feelings, taking new perspective). Therapist approval and information giving were followed often by responses that indicated feeling supported or hopeful. The other response modes were less likely to produce productive responses in the clients, whereas the influence of self-disclosure could not be assessed due to its low rate of occurrence.

Research on the process of individual therapy also studies clients' behaviors and responses within and across sessions. To the extent that clients' response modes are related to treatment effectiveness, clients' response modes can be used as immediate indexes of therapy outcome (Hill et al., 1992). Client response modes can be used also as outcome proxies to assess the potential therapeutic impact of either or both specific therapist response modes and the context in which therapy interventions are delivered. That is, various therapist interventions and therapeutic contexts (e.g., CMC vs FTF) might be differentially conducive to facilitate specific client response patterns. The most influential work on clients' therapy behavior has been done with two assessment tools, the Client Experiencing Scale (CES; Klein et al., 1970; Klein, Mathieu-Coughlan, & Kiesler, 1986) and the Client Behavior System (CBS; Hill et al., 1981).

Klein's measure is largely based on Roger's client-centered theory and was developed to assess a client's level of involvement (Klein et al., 1970). Roger's non-directive theory emphasizes a person's strengths and posits that if the therapist recognizes, clarifies, and accepts the clients' feelings, in addition to facilitating here and

now experiences within the therapeutic relationship, the client will have the opportunity to become aware of his/her true feelings (de Haas, 1980; Lehmann, 1974; Rogers, 1961). Rogers posits that this awareness of self can only become actualized, grow, and change, through an interpersonal relationship that is safe, accepting and caring (Schmid, 2002). The therapist's goal is to create the conditions that will encourage clients toward self-actualization, to become their most real and richest being (Brodley, 1986). The CES consists of a one 7-point scale designed to evaluate psychotherapy transcripts to measure the extent to which therapy progresses through seven steps from impersonal client discourse to an intimate and more involved discourse. The seven referents are (1) impersonal, (2) superficial, (3) externalization or limited references to feelings, (4) questioning and unclear inner referent, (5) direct inner references, (6) focusing with steps towards resolution, and (7) engagement in deeper inner discourse. That is, the idea is that when the verbal exchange is impersonal and superficial, scores on the scale are low, but as higher levels of feelings are disclosed and experienced, scores on the scale are higher because self-understanding and problem resolution are facilitated (Hill & Corbett, 1993). That is, experiencing is positively related to self-exploration, insight, absence of resistances, and free association, in addition to favorable therapy outcomes (Klein et al., 1986).

Hill's CBS measure is based on Hill et al.'s (1981) pantheoretical theory of therapy process. Hill and O'Grady (1985) developed a generic model to describe the process of therapy. Their model posits that counselor intentions lead counselors to choose specific response modes to use as interventions, which in turn create particular

reactions in clients, who then choose their behaviors accordingly. Hill's CBS was developed in an attempt to determine the effects of therapist behavior (i.e. techniques or interventions) and includes eight nominal, mutually exclusive categories: resistance, agreement, appropriate request, recounting, cognitive-behavioral exploration, affective exploration, insight and therapeutic changes (Hill et al., 1992). The CBS system can help to describe and evaluate client behavior, discover the ways in which clients respond to therapist interventions, and study the ways clients' behaviors change over the course of therapy (Hill et al.). Clients are more productively involved in psychotherapy when they show responses indicative of cognitive-behavioral exploration, affective exploration, insight, and behavioral change (Hill et al.). Conversely, behaviors coded as resistance, agreement, requests, and recounting are thought to reflect a lower level of involvement in psychotherapy and, consequently, less productive behaviors.

***Purpose of the Study: The Nature of On-Line Counseling***

About two-thirds of American adults use the Internet (Fallows, 2004; Taylor & Luce, 2003). About 90% of the Americans who go online say the Internet plays a role in their daily routines. Of these, about 33% say the Internet plays a major role in their daily lives, but almost twice as many (64%) admit their daily routines and activities would be affected substantially if they could no longer use the Internet (Fallows). Young Americans tend to have a more positive attitude than older people about the Internet (Fallows), and not surprisingly virtually all youth between the ages of 12 and 18 have used the Internet (UCLA Center for Communication Policy, 2003).

People use the Internet to gather mental information because they like the “24/7” access to data as well as the anonymity the Internet affords (Fox, 2006). Over 80% of Internet users (or 113 million adults), have searched for online information on health-related topics (Fox). Of these, 22% searched for information on mental-health related issues, and about 9% searched for information on drug and alcohol-related problems (Fox). Young people also use the Internet as a source of mental health information (Bleakly, Merzel, Vandervanter, & Messeri, 2004; Gould, Munfakh, Lubell, Kleinman, & Parker, 2002; Rideout, 2001). A national telephone survey found that about one out of four individuals between the ages of 15 to 24 had used the Internet to look for information about depression, violence, or problems with drugs and alcohol (Rideout, 2001).

Online therapy, defined as interactions through correspondence between counselor and clients that occur via the Internet, is a relatively new but growing phenomenon that has received little research attention. For the purpose of illustration, a PsychInfo database search conducted in January 2007 with the keyword sequence, [*online or Internet or computer mediated*] and [*therapy or counseling or psychotherapy*] was repeated on five-year segments to include the past 15 years (i.e., 1992-1996, 1997-2001, and 2002-2006). The hit rates of peer-reviewed publications were as follows: 12 hits for 1992 through 1996, 156 hits for 1997 through 2001, and 644 for 2002 through 2006. While there is a clear increased interest in the topic, only a handful of these papers described the study of online-therapy process. Cohen and Kerr (1998) found that client ratings of their therapist’s expertness, attractiveness, and trustworthiness were similar for

CMC than FFC. Participants also rated the depth, smoothness, positivity, and arousal of the counseling sessions. Whereas clients expressed higher levels of arousal in FFC, there were no other significant between-group differences. Cook and Doyle (2002) and Prado and Meyer (2006) concluded that online clients perceived high levels of working alliance with their therapists. Similarly, Pinto-Ferreira (2006) assessed 30 e-mail pairs written between a therapist and a client using the *Psychotherapeutic Process Q-Sort* (Jones, 2000). The results characterized the client and therapist behaviors as committed to the therapeutic process.

The present study sought to fill the gap between the interest in online psychotherapy and the absence of research describing the nature of online interactions between counselors and clients. Using archived online interactions between therapists and a cohort of adolescent students that participated in a GEAR UP (Gaining Early Awareness and Readiness for Undergraduate Programs) project (U.S. Department of Education), the present study provides a picture of what goes on in online therapy. Online transcripts were coded using the *Helping Skills System* (HSS; Hill & O'Brien, 1999) and the *Client Behavior System* (CBS; Hill & O'Brien). The coded transcripts allowed for a description of therapist responses and quantified adolescent engagement in therapy by documenting their overall level of participation and the extent to which their participation included “productive” self-disclosure. Using Hierarchical Linear Modeling, the association between types of therapist interventions and client online behaviors were also examined.

### *Hypotheses*

In addition, to providing a description of therapist and client online behavior through a molecular investigation of therapist and client response modes, the following was hypothesized:

- (1) Clients' rate of productive interactions would increase with number of sessions (i.e., as users become accustomed to the medium and the therapeutic alliance develops, clients will increase their engagement and productive participation in psychotherapy [Hill et al., 1992]).
- (2) Therapist use rates of the various counselor behaviors will be similar across therapists within the present study, but different from the patterns of use observed for other types of helpers. This prediction is based on previous research that found that therapist behavior patterns vary across therapists of different theoretical orientations and therapy settings (Nagel, Hoffman, & Hill, 1995).
- (3) There will be a positive relationship between productive client involvement (cognitive-behavioral exploration, affective exploration, insight, therapeutic changes, and immediacy) and the therapist response modes of approval/reassurance and paraphrasing, interpretation, and self-disclosure (Hill et al., 1988; Hill & O'Brian, 1999). That is, as in FFC, the prediction is that both therapists and clients adjust their behaviors in response to each other (Hill & O'Brian).



## METHODS

### *Participants*

The study analyzed archival data obtained from six individual, online interactions between therapists and their respective adolescent clients. Online therapy took place over three separate academic calendar semesters, Spring 05, Fall 05, and Spring 06. The first semester of each of these six cases were led by a different therapist, with three cases starting in the spring of 2005 and the remaining three in the fall of the same year.

Within the manuscript longer, these therapy cases or dyads will be named with capital letters from *A* to *F*. Both clients and therapists will be identified by their dyad name.

***Therapists.*** The therapists were doctoral counseling students enrolled in a field practicum class. Some therapists were enrolled in the practicum for a single semester whereas others participated multiple semesters. All therapists were introduced to online therapy with adolescents through a 3-hour training workshop that emphasized the technical and ethical aspects of online therapy, including challenges, limitations and benefits (Rochlen, Zack & Speyer, 2004). The training also included a review of person-centered and solution-focused theory and techniques. Some of the therapists, including the six therapists that led the cases selected for analysis, had learned previously about both person-centered and solution-focused theories in a graduate psychotherapy theories class. Of the six selected dyads, five consisted of female counselors treating female clients and one was formed by a male counselor treating a male client.

*Clients.* The clients were high-school freshmen or sophomores who began therapy with a new counselor in the spring or fall semester of the year 2005. All clients were recruited from one of three different high schools from southern Texas. Their schools were affiliated with the Gulf Coast GEAR UP Partnership Project (a service grant funded by the US Department of Education). With regards to ethnicity, most of the youth reached by this GEAR UP project were Hispanic (64%), with European-American (33%) and African-American (2%) children constituting the second and third largest groups, respectively. The clients were referred by their school counselors. Some adolescents were in counseling already with their school counselor, others were referred because they had academic problems and they were at risk of failing or dropping out of school, and a few adolescents requested the online services on their own. The source of the referral was not documented in the archival data set. However, all clients participated voluntarily after obtaining parental written consent. Of the cases selected for analysis, five were female clients (*A, B, C, D, & F*) and one was a male client (*E*).

### *Measures*

*Helping Skills System (HSS; Hill & O'Brien, 1999).* This system was first developed by Hill (1978) as the *Hill Counselor Verbal Response Category System* (HCVRCS and has been modified several times (Hill, 1985, 1986; Hill et al., 1981; Hill, Corbett et al., 1992; Hill & O'Brien, 1999). The HSS classifies therapist responses into 12 verbal helping skills. *Approval and reassurance* includes expressions of emotional support, reassurance, and encouragement; *closed questions* refer to a request limited to

specific information; *open questions* ask for clarification, or exploration of thoughts, feelings, and behaviors; *restatements* are simple repetitions (or rephrasing) of clients' statements; *reflections* are restatements with explicit identification of the client's feelings; *challenges* point out discrepancies, contradictions, and defensiveness; *interpretations* go beyond clients' statements in that they provide new meaning to behaviors, thoughts, or feelings; *self-disclosures* reveal something personal about the helper; *immediacy* disclosures reveal the helper's immediate feelings about self in relation to client; *informative* statements provide data, facts, and opinions; *direct guidance* provides suggestions, directions, and instructions; and *other* statements.

These categories can be combined to reduce the number of categories into broader levels of abstraction (Hill et al., 1992). Approval and reassurance, restatement, and reflection of feelings can be collapsed into *facilitation*; closed questions and open questions can be collapsed into *questions*; self-disclosure and immediacy can be collapsed into *self-disclosure*; and information and direct guidance can be collapsed into guidance. Adding challenge and interpretation as separate categories, the classification system yields a total of seven defined categories. Rater agreement for the classification system has been reported to range between .55 and .94, and content validity was established on the basis of the congruence between therapist and client responses (see Hill et al., 1988; Hill & O'Brien, 1999). Shechtman (2004) reported very high interrater reliability across all 12 skills,  $\kappa = .97$ .

***The Client Behavior System (CBS; Hill & O'Brien, 1999)***. The CBS classifies clients' verbal behavior in therapy into 8 therapy-process related responses. *Resistance*

statements include complaining or blaming others, defensiveness, and denial. *Agreement* is indicated by understanding or approval of what the therapist has said. *Appropriate requests* are questions or statements made to seek clarification, understanding, or advice. *Recounting* includes small talk, answers to the therapist's questions, and facts about the past. *Cognitive explorations* are statements that demonstrate exploration of thoughts or behaviors. *Affective explorations* are reflections about feelings. *Insights* are clients' expressions of understanding about themselves, including realizations of their behavioral patterns, as well as finding the reasons for their behavior, thoughts, or feelings. *Therapeutic changes* are identified in expressions of a change in behaviors, thoughts, and feelings.

These categories can be collapsed into two broader categories, *unproductive* (resistance, agreement, appropriate request, recounting) and *productive* (cognitive explorations, affective explorations, insight, change). Hill et al. (1992) found that psychologists rated the first four categories as less productive (clients were less involved and worked less productively) than the second four categories. Interrater reliability has yielded high kappa values for two judges as .99 (Shechtman, 2004). The CBS classification system is backed by evidence of both convergent validity (congruence with therapist style) and construct validity (congruence with client-experiencing ratings; Klien, Mathieu-Coughlan, & Kiesler, 1986).

In the present study the coders noted that clients often expressed their immediate feelings in relation to the helper. These expressions were so distinct that rather than categorize this type of client statement as *affective explorations* it was decided to code

them as a separate category that was called *immediacy* (as within the *HSS* nomenclature). Client Immediacy was treated as client productive responses because these statements would have been categorized otherwise as affective explorations.

### ***Procedures***

***Online Therapy.*** Doctoral students enrolled in a clinical practicum conducted online therapy through a Gear Up, school-counselor referral program. Therapist and clients met and communicated over the Internet via a restricted email network system that used WebCT software. For the present study, a therapy session was defined as a therapist message and the subsequent client communication (reply) to that message.

The archival of data was conducted without the intent of being used in research. To avoid putting at risk the confidential nature of the therapist-client communications, transcript coders did not have access to identifying information of either the clients or the therapists, as these data were replaced with mock information beforehand by a Gear Up project supervisor who was familiar already with the identity of the therapist-client dyads and the content of the online communications (see: "Ethical and Legal Aspects of Human Subjects Research on the Internet; Frankel & Siang, 1999).

***Coding.*** Undergraduate, psychology majors, blind to the hypotheses of the study were trained by the author using Clara Hill's *HSS* and *CBS* instructional manuals (Hill, 2001, 2004; Hill & O'Brien, 1999). Raters were trained first to identify each grammatical sentence within each session transcript. The grammatical sentences (units) were then coded according to their category. Training included discussion of each

response type, followed by joint ratings of practice transcripts until full agreement was achieved. Once all the transcripts had been unitized, raters were trained to code clients' transcripts. Training and coding of therapist transcripts followed the completion of the coding of client transcripts. Actual coding of the transcripts for each variable (units, therapist responses, and client responses) was not initiated until all judging pairs achieved at least a 90% agreement rate.

Three judges were trained to unitize transcripts and code clients' responses. For the coding of therapist transcripts only two judges remained available. For the unitizing and the coding of client transcripts, each therapist-client dyad was rated by two separate judges. Disagreements between any pair of judges were evaluated by a third judge, who rendered his or her judgment independently to resolve the tie. In very few occasions (less than 1% of initial disagreements) the arbitrator selected a category that was not one of the two prior judgments. These unusual cases were resolved by discussion between the three raters. Initial interrater reliability for the 9 categories of the client responses was very good  $\kappa = .77$ .

For therapist response coding, *all* transcripts were rated by the same pair of judges. Disagreements were resolved by discussion between the two judges. In the present study, therapist responses were coded using the 12-category nomenclature, which were then used to create the 6-category collapsed system. Initial interrater reliability for the 12 categories was very high,  $\kappa = .88$ .

***Data Analyses.*** A hierarchical linear model (HLM) was used to predict rates of client productive behavior from rates of the various therapist behaviors while controlling

for time (number of sessions) in therapy. The software used was HLM-6 (Raudenbush, Bryk, Cheong & Congdon, 2004), and the analyses were conducted following the guidelines of the software manual and the book by Raudenbush and Bryk (2002). The predictor variables were centered by transforming rate scores to *z* scores within each individual separately. To assess the effect of time in therapy, sessions were coded according to their order of occurrence but starting with zero for the first session (as indicated by Raedenbush & Bryk). To decrease the number of independent variables, the 12 therapist behaviors were combined into five broader categories or levels of abstraction (Hill & O'Brien, 1999). Approval and reassurance, restatement, and reflection of feelings were collapsed into *facilitation*; closed questions and open questions became *questions*; self-disclosure and immediacy were combined for *self-disclosure*; information and direct guidance were collapsed into *guidance*. Challenge and interpretation are not typically combined, but given their low rate of occurrence in the present study, and given that theoretically they represent two skills used during the *insight* phases of therapy (Hill & O'Brien), they were combined within a single category that was called *insight*.

Conceptually, HLM is similar to regression analysis but does not require independence of observations as a primary assumption for the analysis (assumption that is violated with nested data that is not uniformly collected). An example of nested data would be scores collected from groups of students from different classrooms grouped by schools, grouped by school district, etc. Participants within any given group are expected to have similarities due to their shared environment, and participants across settings are

expected to have differences due to group effects. Repeated observations collected on a set of individuals at times and circumstances that vary across individuals can be properly conceived as nested within persons (Raudenbush & Bryk, 2002). In the present study, session observations (level-1 units of analysis) were nested within individuals (level-2 units of analysis).

At the level-1, the dependent or predicted variable can be estimated as a function of an intercept, plus one or more predictor covariates, plus random error. The model at the level-1 analysis is similar to that of regression:

$$y_{it} = \pi_{0i} + \pi_{ti}c_{ti} + \dots + \pi_{kti}x_{kti} + e_{it}$$

For the present study,  $y_{it}$  is the predicted rate of productive behavior of individual  $i$  at time  $t$ ,  $c_{ti}$  is the time variable, or session  $t$  for client  $i$ ,  $x_{kti}$  is any given session-varying covariate (e.g., rate of therapist self-disclosure), and  $e_{it}$  is the residual error term for the predicted observation. The intercept for the equation is represented by  $\pi_{0i}$ , whereas  $\pi_{ti}$  and  $\pi_{kti}$  represent the slopes for session and the covariate, respectively. In HLM, level-1 slopes and intercepts become outcome or predicted variables that are a linear function of level-2 variables. In the present study, the level-1 parameters were predicted as follows:

$$\pi_{0i} = \beta_{00} + r_{0i}$$

$$\pi_{ti} = \beta_{10}$$

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.

$$\pi_{ki} = \beta_{k0}$$



That is, the intercept at the level-1 variable was estimated by a level-2 coefficient and a level-2 effect across dyads plus random error associated with dyad variability,  $\pi_{0j} = \beta_{00} + r_{0i}$ , whereas the slopes were predicted without random error variability across dyads,  $\pi_{1i} = \beta_{10}, \dots, \pi_{ki} = \beta_{k0}$ . That is, only intercepts were allowed to vary across individuals (lack of power did not allow for a more in depth analysis at the level-2 analysis). The  $\beta_{k0}$  parameters represent the level-1 coefficients averaged across groups. In the present model, Level-1 and level-2 equations combined into a mixed single equation (by substituting the intercept and slope terms of the first equation with their level-2 predicting equation) as follows:

$$\text{Level 1: } y_{it} = \pi_{0i} + \pi_{1i}c_{ti} + \dots + \pi_{ki}x_{kti} + e_{ti}$$

$$\text{Level 1 \& 2: } y_{it} = \beta_{00} + \beta_{10}c_{ti} + \dots + \beta_{k0}x_{kti} + r_{0i} + e_{ti}$$

The model described above tests whether there is a relationship between the rate of productive client output and the various therapist behaviors after controlling for the effect of time (number of sessions). The model also tests whether there are significant intercept differences across dyads. With adequate power, the model could have tested also whether there were significant slope differences for the covariates across the dyads.

The data set consisted of 120 observation units, 1 predicted variable and 6 predictor variables. The 120 observations fulfill amply the 10-to-1 observations-to-predictor rule of thumb for adequate power at the level-1 analysis (Bryk & Raudenbush, 1992). However, the guidelines of power are less clear when several parameters are predicted for the level-2 effects (Hofmann, 1997). Typically, as the number of groups (or individuals in a repeated measures design) increases the model gains power and reduces

its need for a high number of observations within each individual (Hofmann). Kreft (1996) concluded that large sample sizes are required to test level-2 differences across individuals. For example, to have adequate power to test level-2 interactions, a sample of 30 individuals with 30 observations per individual would be necessary (Bassiri, 1988; van der Leeden & Busing, 1994). In the present case, there are 6 individuals with 19 to 22 observations per individual. Thus, because a level-2 model with 6 individuals should require more observations per individual than a model with 30 individuals, the present 120 observations from 6 individuals did not even fulfill the minimum number of observations per individual that a data set with five times more individuals (or 30) would have required (Kreft's rule of thumb). Hence, the model tested here did not examine slope differences for the covariates across the dyads.

The analyses were conducted using HLM.6 software, which creates two SPSS files with the level-1 and level-2 residuals needed to assess whether the data met HLM assumptions. In addition, HLM.6 provides a test for heterogeneity across categories (individuals in this case). It was verified that the data were appropriate for HLM:

1. The error residuals in the level-1 model were normally distributed.
2. The covariance between level-1 predictors and the error terms was zero.
3. The HLM test for variance heterogeneity across individuals was not significant.
4. The covariances between level-2 predictors and level-2 error terms were zero, as were the covariances between level-1 and level-2 residuals.

## RESULTS

### *Descriptive Analysis*

For each client, Table 1 reports the number of therapist posts, client posts, participation compliance rates, total therapist units, total client units, therapist and client units per session, therapist to client unit output ratio, and clients' rate of productive units per session (productive units over total units). A complete session is defined as a therapist post and client's answer to that post. Therapists continued to post messages irrespective of whether or not a client had posted a response to a previous post. Thus, the number of completed sessions is equal to the number of client posts and the number of missed sessions is equal to the number of therapist posts minus client posts. Rate of client compliance is the number of client posts over therapist posts. The average number of complete sessions per dyad was 23 and the overall rate of client compliance, or client posts over therapist posts, was 90% (see Table 1).

Overall, therapists "talked" more than their clients, with therapists producing about 1.25 times more grammatical units per sessions than their clients. Nonetheless, there was quite a bit of variability across dyads (see Table 1). Client *E* produced about one and a half times as many units as the therapist. In dyads *A* and *C*, the clients produced about half as many units as their therapists. Finally, there were two clients, in dyads *D* and *F*, who produced about the same number of units per session as their therapists.

Table 1

*For Each Therapy Dyad and Averaged across Dyads: Number of Therapist and Client Posts, Adherence Rate (Client to Therapist Post Ratio), Therapist Units per Session (M, [SD]), Client Units per Session (M, [SD]), Therapist by Client Unit Ratio, and Client Productive Rate per Session (M, [SD])*

Dyad	A	B	C	D	E	F	M
Therapist Posts (TP)	22	22	23	23	20	24	22.3
Client Posts (CP)	22	19	19	22	19	19	20.0
Compliance Rate (CP/TP)	1.00	0.86	0.83	0.96	0.95	0.79	0.90
Therapist Units/Session	30.4 (16.7)	35.3 (11.2)	49.6 (26.5)	35.6 (16.4)	40.5 (9.0)	36.1 (17.3)	37.0 (17.7)
Client Units/Session	16.7 (6.4)	21.6 (10.2)	21.7 (12.8)	33.4 (20.7)	56.6 (24.3)	29.2 (16.4)	29.5 (16.3)
Therapist/Client Ratio	1.8:1.0	1.6:1.0	2.3:1.0	1.1:1.0	0.7:1.0	1.2:1.0	1.2:1.0
Productive Rate/Session <sup>a</sup>	0.36 (0.20)	0.24 (0.15)	0.47 (0.21)	0.36 (0.19)	0.65 (0.15)	0.43 (0.22)	0.42 (0.19)

<sup>a</sup> Productive Rate = (cognitive explorations + affective explorations + insight + change + immediacy) / Total Client Units

Figure 1 depicts the averaged total number of productive and unproductive units per session for the first session and six subsequent blocks of sessions combined. Each point is the mean rate of productive output averaged across the six clients. The first point corresponds to the first session. The second through sixth data point represent the productive output across three sessions (sessions 2-4; 5-7; 8-10; 11-13; 14-16). The seventh point represents the client-weighted average of sessions 17 and beyond (for two clients this is the average of six sessions, for four clients this is the average of three sessions). Visual inspection of Figure 1 suggests that overall levels of productivity remained fairly constant throughout the course of therapy, and that unproductive units outnumbered productive units in all but the last block of sessions (session 17 and beyond). However, with the exception of the period between sessions 8 to 13 (blocks 4 & 5), differences between unproductive and productive counts tended to diminish as a function of time in online counseling. That is, the rate of client productive output per session (measured as a percentage of the total output) achieved a relatively high level of engagement soon after the first session. This high level of productivity declined midway through the course of therapy but increased again during the last third of therapy. By the end of therapy, productive output outnumbered unproductive output (see Figure 2).

*Analysis of Therapist Responses.* Averaged across sessions, Table 2 summarizes the extent to which the different response modes were used by each therapist. Among all the response modes, therapists favored showing approval and being reassuring, asking questions, and giving information; together, these response modes represented about 61% of the total unit output (see Table 2). Therapists tended to reveal personal

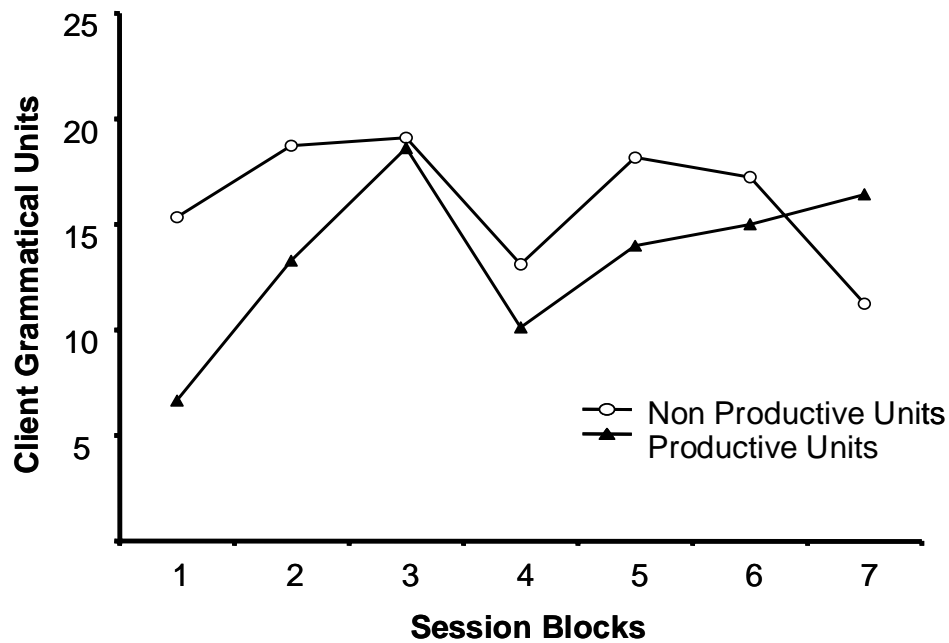


Figure 1. Average total of productive and unproductive client units per session per each block of four sessions (1 = 1; 2 = 2-4; 3 = 5-7; 4 = 8-10; 5 = 11-13; 6 = 14-16; 7 = 17+)

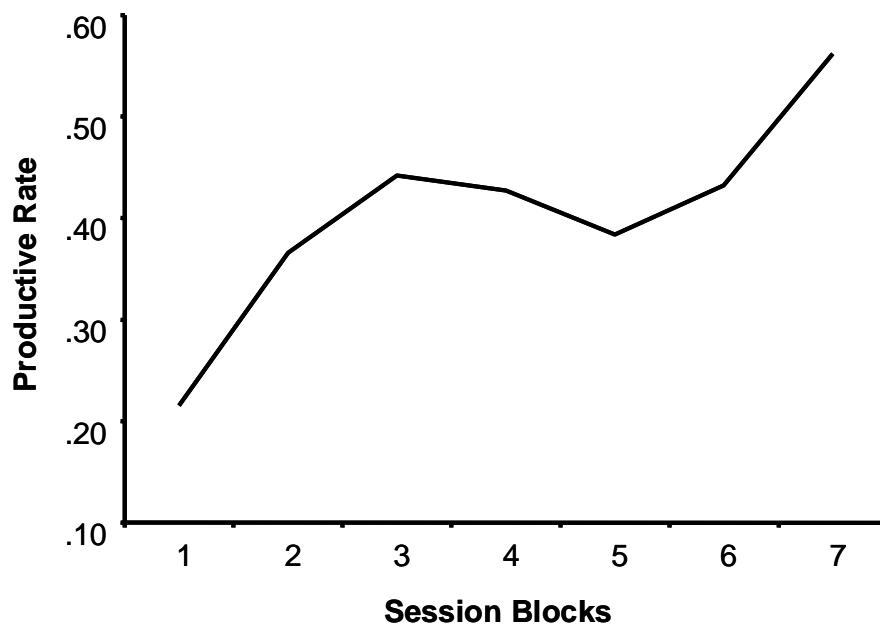


Figure 2. Rate of client productive behavior calculated as the average number of productive units over the total average number of units per session per each block of four sessions

Table 2

*Therapist Response Mode Rates per Session for Each and across All Dyads (M [SD])*

Response Mode	A	B	C	D	E	F	All
Approval	.22 (.11)	.22 (.10)	.26 (.10)	.24 (.11)	.26 (.10)	.31 (.14)	.25 (.03)
Closed Question	.15 (.09)	.13 (.09)	.09 (.07)	.06 (.05)	.08 (.04)	.06 (.07)	.09 (.04)
Open Question	.13 (.07)	.15 (.09)	.11 (.09)	.13 (.09)	.09 (.09)	.11 (.06)	.12 (.03)
Restatement	.03 (.04)	.07 (.05)	.04 (.08)	.09 (.10)	.07 (.06)	.05 (.06)	.06 (.02)
Reflection	.02 (.03)	.02 (.03)	.01 (.02)	.01 (.02)	.03 (.03)	.01 (.02)	.02 (.01)
Interpretation	.04 (.05)	.01 (.02)	.02 (.03)	.04 (.05)	.09 (.05)	.04 (.04)	.04 (.03)
Challenge	.01 (.03)	.00 (.00)	.01 (.02)	.01 (.03)	.05 (.05)	.01 (.02)	.01 (.01)
Self-disclosure	.06 (.07)	.14 (.12)	.06 (.09)	.06 (.09)	.06 (.10)	.06 (.09)	.07 (.03)
Immediacy	.03 (.04)	.03 (.03)	.08 (.10)	.04 (.05)	.03 (.04)	.06 (.07)	.05 (.02)
Information	.11 (.17)	.11 (.15)	.18 (.17)	.21 (.24)	.09 (.09)	.14 (.19)	.14 (.05)
Guidance	.06 (.12)	.02 (.06)	.03 (.07)	.04 (.07)	.05 (.10)	.01 (.03)	.04 (.02)
Other	.12 (.04)	.11 (.08)	.11 (.07)	.10 (.07)	.11 (.04)	.14 (.07)	.11 (.01)

information and how they felt about the therapy interactions with relatively high frequency. These two types of self-disclosure combined for 12% of the total therapist unit output. Therapists restated and interpreted client responses infrequently, and reflected feelings and challenged their clients very rarely (see Table 2). Opening and closing salutations and small talk made most of the responses that fell into the *other* category, which comprised a substantial proportion (12%) of the overall therapist output.

The therapist in dyad *E* seemed the most different from the rest (see Table 2). For therapist *E*, *interpretation* occurred at a rate of 9%, or at least five standard deviations above any other therapist (see Table 2). Also strikingly different was the much higher use rate of *challenge* by therapist *E* (5%) than by any other therapist (range = 0-1%). To estimate the level of similarity between therapist behaviors, rates of therapist-response modes (columns in Table 2) within therapist were converted to ranks and Spearman correlations between pairs of therapist were conducted. The lowest pairwise correlation was between therapists *B* and *E*,  $r(12) = 0.59, p = .042$ , with the second lowest correlation being between therapists *C* and *E*,  $r(12) = 0.72, p = .009$ . The highest correlation was between therapists *C* and *F*,  $r(12) = 0.96, p < .001$ . The two second highest correlations were between therapists *C* and *D*, and between therapists *D* and *F*, both  $r(12) = 0.91, p < .001$ . Therapist *E* had the lowest mean average correlation, 0.73, whereas therapists *C*, *D*, and *F* yielded the highest average correlations, all  $> .84$ . Clearly, therapists were highly similar to each other with regards to their skill-use patterns, with therapist *E* being the most dissimilar of the six therapists.



To examine the extent to which online therapists and FFC therapist are similar in their selection of skills, the present findings were compared to previous research findings. Table 3 lists output rates for nine therapist response modes, including the present sample, five other therapist samples, and three renowned therapists: Carl Rogers, Fritz Perls, and Albert Ellis. These data were obtained from published research that used the Hill Counselor Verbal Category System (Hill, 1978, 1985, 1992):

1. Hill (1989) analyzed the interactions of psychoanalysts in eight cases of brief therapy.
2. Hill, Thames, & Rardin (1979) compared transcripts from Rogers, Perls and Ellis.
3. Levy, Emerson, and Brief (1991) analyzed 12 calls taken by four radio hosts who were doctoral level psychologists.
4. Nagel, Hoffman, and Hill (1995) analyzed the verbal responses of four, master level career counselors working with two adult clients each.
5. Toro (1986) studied a mixed sample of doctoral and master's-level psychologists and social workers, here thereof *mental health professionals*.
6. Heaton, Hill, and Edwards (1995) compared different molecular and molar methods of coding therapist techniques using a sample of 23, 6-session therapy cases conducted by doctoral counseling psychology students, here thereof *counseling students*.

Table 3

*Response Mode Rates by Student Therapists in the Present Study, and by Student Therapists, Career Counselors, Brief Psychodynamic Therapists, Rogers, Perls, Ellis, Mental Health Professionals (MH), and Radio Talk Show Psychologists as Reported in previous Published Studies (see Nagel, Hoffman, & Hill, 1995)*

Response Mode	Present	<sup>a</sup> Student	<sup>b</sup> Career	<sup>c</sup> Brief	<sup>d</sup> Rogers	<sup>d</sup> Perls	<sup>d</sup> Ellis	<sup>e</sup> MH	<sup>f</sup> Radio
Approval	.25	.05	.05	.06	.06	.02	.01	.05	.07
Closed Question	.09		.09	.19	.05	.07	.07	.23	.11
Open Question	.12	.24	.05	.13	.02	.11	.03	.09	.07
Paraphrase	.08	.18	.14	.20	.42	.12	.08	.13	.06
Interpretation	.04	.09	.04	.08	.16	.13	.14	.01	.12
Confrontation	.01	.03	.01	.05	.05	.07	.01	.01	.02
Self-disclosure	.12	.00	.02	.01	.02	.01	.00	.00	.04
Information	.14		.42	.23	.16	.13	.35	.36	.21
Direct Guidance	.04	.08	.18	.05	.00	.21	.24	.10	.23

Note. Proportions do not add up to 1.00 because there was typically an “other” category; in the <sup>a</sup>Heaton, Hill, & Edwards (1995) open and closed questions, as well as information and direct guidance, were combined within a single category, respectively; <sup>b</sup>Nagel, Hoffman, & Hill (1995); <sup>c</sup>Hill (1989); <sup>d</sup>Hill, Thames, & Rardin (1979); <sup>e</sup>Toro (1986); <sup>f</sup>Levy (1989).

At a descriptive level, the most notable and consistent difference was the considerably higher use of approval/reassurance and self-disclosure in online than in other types of therapy. Use rates for approval/reassurance were between 3.6 and 25 times higher for online than other types of helpers (see Table 3). Whereas online therapists used self-disclosure (including immediacy) with relatively high frequency (12%), all others used self-disclosure very rarely. Radio helpers were the second highest users of self-disclosure (4%), with all other samples using self-disclosure very rarely (0-2%).

To estimate the degree of similarity between online therapists and FFC therapists, skill-use rates were transformed to rank scores within each therapist type (columns in Table 3) and pairwise Spearman correlations between therapist types were conducted. Regarding use rates of therapist skills, online therapists were most similar to career counselors,  $r(7) = .56, p = .096$ , radio helpers,  $r(7) = .54, p = .108$ , and mental health professionals,  $r(7) = .49, p = .134$ . Online therapists differed most from Rogers,  $r(7) = -.18, p = .351$ , Perls,  $r(7) = .07, p = .440$ , and, surprisingly, doctoral counseling students,  $r(7) = .18, p = .351$ . The levels of use-rate associations were modest with Ellis,  $r(7) = .36, p = .469$  and brief therapy psychoanalysts,  $r(7) = .31, p = .345$ . Clearly, the analyses indicate that online therapists were very much more similar within themselves than with other types of therapists.

***Analysis of Client Responses.*** The relative use of each client response type is reported in Table 4. Given the low rate with which most client behaviors were used, a ranking of the use rates of client behaviors was not performed. Overall, most units were classified as either recounting (55%) or cognitive explorations (32%), with the third

most common response being self-disclosure of immediate thoughts and feelings towards the therapist or the therapy process (8%). This pattern of behavior was relatively similar across clients. Except for client *E*, clients engaged in more recounting (all > 50%) than cognitive exploration (all < 33%). This pattern was reversed for client *E*, for whom recounting was less prevalent (30%) than cognitive exploration (57%). Like with the therapists, client *E* was the most dissimilar of the six clients.

Table 4 also lists rates of client responses for a sample of eight women in psychodynamic brief therapy as reported by Hill et al. (1992). The results by Hill et al. are remarkably similar to the results found in the present study. Recounting was the most common response in the Hill et al. study (49%), with cognitive exploration being the second most frequent response (33%). A difference with the present study was the higher resistance rate displayed by the clients in the Hill et al. study.

### ***Prediction of Client Productive Behavior***

First, an HLM *null* model was run to determine both the observed within and between group variance in the predicted variable, or rate of client productive output. These estimates can later be used to calculate the proportion of the total variance that lies within and between individuals. In the present experiment, the within variance was later used to estimate an  $R^2$ , or proportion of variance accounted for by the fixed effect (level-1) component of the model tested ( $R^2 = [\sigma^2_{\text{null}} - \sigma^2_{\text{random}}] / \sigma^2_{\text{null}}$ ). The null model does not include any predictors and specifies the model identifying only the intercept terms in both levels of the hierarchical model:

Table 4

*Client Response Mode Rates (M [SD]) in the Present Sample for Each and across All Therapy Dyads, and as Reported by Hill et al. (1992)*

Response	A	B	C	D	E	F	All	Hill et al
Resistance	.00 (.00)	.00 (.00)	.01 (.02)	>.01 (.02)	.02 (.04)	.00 (.00)	.01 (.01)	.08 (.05)
Agreement	.01 (.02)	>.01 (.01)	>.01 (.02)	.01 (.02)	>.01 (.01)	>.01 (.01)	>.01 (.01)	.03 (.01)
Requests	.01 (.03)	.03 (.08)	>.01 (.01)	.02 (.05)	.02 (.02)	.01 (.02)	.02 (.01)	.01 (.01)
Recounting	.61 (.21)	.72 (.14)	.51 (.21)	.60 (.21)	.30 (.13)	.55 (.22)	.55 (.14)	.49 (.15)
Cognitive Exploration	.32 (.20)	.19 (.14)	.29 (.20)	.29 (.19)	.57 (.19)	.28 (.23)	.32 (.13)	.33 (.11)
Affective Exploration	>.01 (.01)	.01 (.02)	.03 (.04)	.01 (.02)	.03 (.02)	.05 (.05)	.02 (.02)	.03 (.02)
Insight	.00 (.00)	.00 (.00)	>.01 (.01)	>.01 (.01)	.00 (.00)	.00 (.00)	>.01 (.01)	.03 (.02)
Change	.00 (.00)	>.01 (.04)	.01 (.04)	.00 (.00)	>.01 (.01)	.00 (.00)	>.01 (.01)	.02 (.01)
Immediacy	.04 (.07)	.05 (.07)	.15 (.16)	.06 (.08)	.06 (.06)	.11 (.12)	.08 (.04)	NA

$$\text{Level-1: } y_{ii} = \pi_{0i} + e_{ii}$$

$$\text{Level-2: } \pi_{0i} = \beta_{00} + r_i$$

The within client variance for the null model was,  $\sigma_{null}^2 = 0.035$ , whereas the level-2 variance was  $\tau_{null} = 0.017$ . To assess the degree of between dyad variance in client rate of productive behavior the Intra-Class Correlation (ICC) metric was calculated,  $ICC = \tau / (\tau + \sigma^2)$ . For the null model,  $ICC = .33$ . That is, 33% of productive client-behavior variance resided between clients. The Chi-square test associated with the between variance was statistically significant,  $\chi^2(5) = 60.31, p < .001$ , which means that the intercept term (mean rate of client productive behavior) varied significantly across dyads.

As described in the *Data Analysis* section above, a level-2 HLM was conducted to predict rate of client-productive behavior per session as a function of preceding number of sessions and therapist behavior. Rate of productive client behaviors were obtained by summing the rates of cognitive explorations, affective explorations, client immediacy, insight, and change. At the level-1 analysis, the predictor variables were time in therapy and five therapist behaviors (facilitation, questions, self-disclosure, guidance, and insight). Due to power concerns, the level 2 analysis did not test for differences between individuals in any of the predictor variables (i.e., only the intercept was allowed to vary randomly between dyads).

The HLM output file provides the reliability of the level-1 random coefficients averaged across groups, which indicates the amount of systematic variance in the parameters across groups (Hofmann, 1997). In the present model, the reliability

coefficient for the intercepts was high .92. These tests revealed that, on average, session number,  $t(5) = 2.75, p = .007$ , and rate of therapist facilitation behaviors,  $t(113) = 3.23, p = .002$ , were predictive of rate of client productive behavior. No other covariates were predictive of rate of client productive behavior (see Table 5).

The HLM output file provides a chi-square test to indicate whether the variance in the intercepts between individual dyads is significantly different from zero. In the present case, while controlling for sessions and the five covariates, the between dyad variance was statistically significant, indicating that the intercepts across dyads were significantly different from each other,  $\chi^2(5) = 65.61, p < .0001$  (see Table 6). The HLM output does not provide a chi-square test for the level-1 residual variance. However, Table 6 shows that the residual variance for the level-1 model was larger ( $e = 0.030$ ) than the variance for the intercept term ( $r_0 = 0.018$ ). The proportion of the variance of the level-1 model in relation to the total variance available in the null model was .14 ( $R^2_{level-1} = (\sigma^2_{null} - \sigma^2_{random\ reg}) / \sigma^2_{null}; R^2 = (0.035 - 0.030) / 0.035$ ). That is, the proportion of variance accounted for by the predictors in the level-1 model was  $R^2 = .14$ .

Table 5

*HLM Final Estimation of Fixed Effects*

Fixed effect	Coefficient	SE	<i>t</i>	<i>df</i>	<i>p</i>
Intercept— $\beta_{00}$	0.351	0.063	5.53	5	>.001
Sessions— $\beta_{10}$	0.007	0.003	2.75	113	.007
Facilitation— $\beta_{20}$	0.064	0.020	3.23	113	.002
Questions— $\beta_{30}$	0.021	0.022	0.95	113	.107
Self-disclosure— $\beta_{40}$	0.025	0.018	1.45	113	.149
Guidance— $\beta_{50}$	0.031	0.025	1.22	113	.224
Insight— $\beta_{60}$	0.022	0.020	1.05	113	.272

% Client Productive Behavior =  $\beta_{00} + \beta_{10}$  (Sessions) +  $\beta_{20}$  (Facilitation) +  $\beta_{30}$  (Questions) +  $\beta_{40}$  (Self-disclosure) +  $\beta_{50}$  (Guidance) +  $\beta_{60}$  (Insight) +  $r_0 + e$

Table 6

*HLM Final Estimation of Random Variance Components*

Random Effect	SD	Variance	<i>df</i>	$\chi^2$	<i>p</i> <
Intercept $r_0$	0.119	0.018	5	65.61	.0001
Level 1 $e$	0.173	0.030			

$R^2_{level-1} = (\sigma^2_{null} - \sigma^2_{random\ reg}) / \sigma^2_{null}$ ;  $R^2 = (0.035 - 0.030) / 0.035$ ;  $R^2 = .14$



## CONCLUSION

The first and overarching goal of the study was accomplished because the results fill the gap between the interest in online psychotherapy and the absence of research describing the nature of online interactions between counselors and clients. That is, the present study represents the first investigation describing the process of online therapy using two extensively validated measures of therapist and client response mode categorization systems. Overall, the findings suggest that the online medium is a viable and potentially effective alternative for counseling adolescent clients. At the very least, online communication with high school freshmen and sophomores occurred with high regularity, with clients failing to respond to their therapist posts about only 10% of the time. The six clients selected for the study posted between 19 to 27 communications, five clients over a two semester span, one client over a one-semester span. The 89% reported rate of *appointment keeping* (rate of reply to therapist posts) compares favorably with other reported rates of adherence for mental health services in rural communities (e.g., 69%; Mooney & Johnson, 1992).

Although amount of therapist talk might be unrelated to treatment effectiveness (Carnes & Robinson, 1948), examining the extent to which clients talk in therapy might be an indicator of their engagement in the online therapy process. In congruence with previous findings within the FFC process literature, the data revealed high variability on amount of therapist-to-client talk across dyads. That is, amount of therapist-to-client talk has been found to vary considerably across therapists, presenting problems, and types of

therapy (e.g., Carnes & Robinson; Hill, 1978; Stiles & Sultan, 1979). However, in the present study, clients were about 25% less “talkative” than their therapists; a finding that is in sharp contrast with results from FFC process research. For example, Hill (1978) and Stiles and Sultan (1979) reported that outpatient college student and adult clients were about 55% more, not less, talkative than their therapists.

The difference between online and FFC on therapist-to-client talk could be due to various reasons. For instance, high-school age adolescents referred by their school counselors for treatment might be more reserved or inhibited in psychotherapy than self-referred adults. Also, considering that both counselors and clients need to be reasonably good writers and typists to manage the online medium (Stofle, 2002; Zack, 2004), differential writing skills alone could explain why online therapists were more talkative than their clients. Unfortunately, given that there are no data published documenting how much therapists talk in relation to their clients in child/adolescent FFC, it is difficult to speculate whether the higher ratio of therapist-to-client talk in the present study is a function of the online medium or the young age of the clients.

The results agreed with first hypothesis of the study, which was that client’s rate of productive output would increase as time in therapy increased. Although the quantity of client talk did not change much throughout the course of therapy, the quality of client interactions changed with time. That is, clients’ productive output increased with number of sessions, a trend that was statistically significant as indicated by the results of the HLM analyses. This finding suggests that through online posts adolescents can become involved in the communication process beyond the superficial level and dwell into

highly intimate, serious matters. For example, client *C* disclosed self-harm behaviors; client *A* shared with her therapist being conflicted about staying close to home or leaving her family behind; client *E* searched for his identity as a gay adolescent (see Appendix). In sum, like within FFC and the development of interpersonal relationships in general (Falk & Wagner, 1985), the sharing of personal interpersonal information increases with time. More importantly, the findings suggest strongly that the online medium is conducive to in depth sharing of interpersonal experiences (Walther, 1993, 1994).

The results supported also the second hypothesis of the study, which predicted that therapist use rates of the various counselor behaviors would be similar across online therapists, but different from the use patterns observed for therapists working within other contexts. That is, previous studies have shown that helpers use skills that fit their theoretical orientation (e.g., Elliot et al., 1987; Hill, Thames, & Rardin, 1979; Mahrer, Sterner, Lawson, & Desaulles, 1986) and the therapy setting (e.g., Hill, 1989; Lin, Kelly, & Nelson, 1996; Nagel, Hoffman, & Hill, 1995; Toro, 1986). In the present sample, online therapists used very high rates of self-disclosure and immediacy (12% combined). The levels of therapist self-disclosure in the present study were at least 3 times more prevalent than previously reported for talk therapies (see Table 3). Another highly differentiating characteristic of online therapist-behavior was the high use of approval and reassurance, which was between 3.6-to-25 times more prevalent than in other FFC settings (see Table 3). At a minimum, the present findings contribute further evidence in support of the assertion that therapists adjust their behavioral repertoire according to the demands of the setting within which therapy takes place (e.g., Toro).

Therapist online-communications were characterized by high levels of approval and reassurance, requests for information (questions), self-disclosure and immediacy, and giving information. Together, these four behavior categories accounted for 72% of the therapist total talking time. The behavior selection patterns across online therapists within the present study were very similar, as indicated by the pair wise correlations between use-rate rankings of therapist behaviors. This homogeneity of behavior selection across online therapists, together with the noted differences with other types of helpers and other therapy settings, suggest that online therapy pulls for a distinctive set of therapist behaviors that are intentional adjustments in response to the specific demands of the medium.

The findings provided very limited support for the third and last hypothesis. That is, interpretation and therapist self-disclosure were not and approval/reassurance was predictive of rate of client productive behavior. The finding is congruent with results showing that clients endorse approval and reassurance as being a very helpful intervention (Hill et al., 1988). Approval and reassurance can be used to provide emotional support by showing empathy and validation of feelings (Hill & O'Brian, 1999). An intended effect of approval and reassurance is to encourage clients to persist in sharing personal information to explore and work towards the goals of therapy. Approval and reassurance is a way of telling clients, "Your experience is normal, you are not alone, tell me more". Based more on clinical lore than actual empirical findings, Hill and O'Brian warn about the dangers of using approval and reassurance excessively, prematurely and insincerely. These authors propose that whereas approval and

reassurance can reinforce client engagement in therapy and motivate client change, approval and reassurance runs the risk of guiding the client in ways that are consistent with the therapist's values. This in turn may discourage clients from further disclosures and damage the therapeutic relationship. For these reasons, Hill and O'Brian recommended that helpers use approval and reassurance cautiously and sparingly. In the present study, approval and reassurance was not only used with high frequency, but its use was predictive of client productive output. That is, facilitating behaviors, which included mostly approval and reassurance, were not only used with high frequency, but were the only significant predictors of rate of client productive output. This finding suggests that online counselors used approval and reassurance effectively and that, contrary to Hill and O'Brian's recommendation, approval and reassurance effectiveness does not appear to be handicapped by a high rate of occurrence.

Like approval and reassurance, self-disclosure is one of the essential therapist response modes in psychotherapy (Elliott et al., 1987), and empirical and anecdotal data suggest that CMC might be more conducive to self-disclosure than FFC (Joinson, 2001). Self-disclosure is important to the development of interpersonal relationships and to the maintenance of intimate relationships (Collins & Miller, 1994; Falk & Wagner, 1985; Laurenceau, Barrett & Pietromonaco, 1998). Self-disclosure is reciprocal by nature in that increased openness on the part of one individual typically leads to increased openness on the part of the listener (Jourard, 1964, 1968, 1971). Thus, although the therapist-client relationship is unique in that the focus of the relational interaction is the intimate life of the client, some types of therapist's self-disclosure might be beneficial

for the development of a productive professional relationship. Indeed, several studies have found that counselor self-disclosures have immediate positive effects on the counseling process (Hill, Helms, Spiegel & Tichenor, 1988; Knox, Hess, Petersen, & Hill, 1977; Ramsdell & Ramsdell, 1993).

Contrary to expectations, neither self-disclosure nor interpretation was associated with higher client productive output. A reason for the failure to find a positive effect for therapist self-disclosure may have been its relatively high rate of occurrence. For example, Watkins, (1990) reported that moderate levels of therapist self-disclosure elicited more client self-disclosure than either high therapist self-disclosure or absence of therapist self-disclosure. Likewise, the most liked therapists were those who self-disclosed moderately. Conversely, interpretation occurred at such a low rate of occurrence that restriction of range limitations may have contributed to the null finding. An alternative explanation is that therapists did not use interpretation very often because they sensed their clients did not react positively to this type of intervention. That is, as argued in the next paragraph, some of the analyses suggested that online-therapists adjusted their interventions to meet their client's responses.

Whereas the therapist-to-client talk ratio, as well as the relative frequencies of the various therapist behaviors, differed between the present study and previous FFC investigations, the behaviors of online clients were remarkably similar to the results found by Hill et al. (1992). In both studies, recounting and cognitive explorations were the first and second most common client responses, respectively. This pattern of client behaviors was relatively similar across clients. Most revealing was the finding that client

*E* engaged more in cognitive exploration than recounting, reversing the pattern observed in the other five clients and, thus, mirroring the results found between therapists. That is, both client and therapist in dyad *E* differentiated themselves from the rest of clients and therapists. This finding suggests that the therapist in dyad *E* adjusted his behavior in response to the unique problems and life circumstances brought to therapy by the client. As described previously, client *E* was highly involved in the therapeutic process from the get go, bringing to therapy highly intimate issues and a high level of participation and sophistication. Given that the molecular analysis captured the differences in interactions across dyads reinforces the validity of the HSS and CBS as measures that can index and describe the nature of therapy processes.

### ***Limitations and Future Directions***

The present study found evidence supporting the viability of the online medium for conducting psychotherapy with adolescents. Given this population's high accessibility to the Internet, if not through home through their schools, online therapy has great potential for reaching out and helping adolescents. However, the above statements should be tempered with awareness of the limitations of the findings.

First, the main strength of the present study, being innovative because it is the first investigation that examines the molecular content of online therapy, also represents an implicit weakness—there are no other data against which the generalizability of the present results can be weighed. Moreover, the present findings were obtained with a limited sample of therapy cases selected because of their longer-term nature. Thus, the

reported findings may not be representative of online therapy in general and they should be interpreted with caution. On the other hand, the study and findings fulfilled the purpose of the study, which purported to examine and describe the extent to which psychotherapy can take place through the online medium. The answer was that online therapy could be described as a distinctive and homogeneous interpersonal process, that length of the relationship and specific therapist behaviors were predictive of client productive engagement, and that clients engaged in the process to substantially deep levels. The extent to which the findings are representative of other not-so-long therapy cases is an empirical question to be studied in future research.

Another weakness of the study was its limited sample size. This difficulty decreased not only the generalizability of the findings, but reduced the complexity of the statistical analyses that could have been conducted. This limitation is tied to the nature of the methodology used to analyze the data. Molecular examinations of therapy transcripts are slow and require intense labor. The time investment made to learn the coding system and then to train coders is considerable. Only the training and coding phases of the study expanded over a two-semester period. Of the four undergraduate students enlisted to conduct the study, one dropped out early on in the training process. Of the three that remained, only two coders stayed for the long haul and finalized the coding process. A more ambitious project seeking to include a larger sample of data would have required the training of additional coders and would have lengthened the completion of the study considerably. Thus an important area of future research would be the development of



new, more user friendlier and efficient methodologies for the molecular study of the therapy process.

With the current state of the art with regards to therapy process research, it is easy to see why this research area is almost exclusively being conducted by one or two research groups. In the current academic climate of *publish or perish*, the prospect of spending two years to initiate a therapy-process research program is likely to become a self-defeating exercise for new assistant professors aspiring to build in five years a research record deserving of tenure. In the absence of more efficient methodologies, therapy process outcome research will continue to grow at a lower pace than the evolution of the therapy methods themselves. Findings from molecular approaches of therapy processes would be more valuable if they could be used prescriptively to adjust and improve interventions. At the present time, therapy process research remains descriptive and evaluative.

Future research on online therapy processes and outcomes is necessary. The field of online therapy is growing rapidly without the benefit of being informed by research findings. The present study suggests that long-term online psychotherapy is a viable medium for interpersonal therapy. Therefore, given the low generalizability of the present findings, a first step for future research could be the examination of the extent to which the present findings are representative of online therapy in general. If the present results can be replicated with a random sample of online therapy cases, the potential usefulness and value of online therapy would be greatly enhanced.

The present findings may have important practical implications not only for future developments within online therapy but also for training and supervision of future CMC and FFT therapists. Researchers have established that evaluation of supervisees within the context of counseling training is very important (e.g., Bernard & Goodyear, 1998; Watkins, 1997). Evaluation provides feedback about the nature of the supervisee progress, raises awareness of strengths and weaknesses, and serves to monitor client care (Watkins). The finding that CMC is a viable medium for the delivery of therapeutic interventions gives access to a new tool that allows the teaching of clinical skills in a manner that reduces risks for the clients without taking away the importance of the practicum experience assigned to the student therapist. That is, CMC allows supervisors to evaluate the student interventions before these reach their clients.

Effective feedback should include both *formative* and *summative* feedback (Bernard & Goodyear, 1998). Formative feedback allows supervisees to adjust their behavior using both reinforcing and corrective evaluations (Bernard & Goodyear). In turn, summative feedback is more about evaluating finished pieces of work (Bernard & Goodyear). Feedback that is realistic, objective, timely and specific is the most effective (Bernard & Goodyear). Thus, CMC may become an excellent tool for the training of student therapists because it enables the supervisor to provide feedback that can be simultaneously formative and summative. That is, the supervisor can evaluate the *final* product as well as provide reinforcing and corrective feedback as needed. The online setting is clearly realistic as student therapists are working with real clients and problems. Moreover, the format of online therapy could easily build in the necessity to

give formative feedback in a very timely manner by requiring the supervisor to examine the student therapist intervention before this is sent to the client (the responsible supervisor would have to provide the feedback before the next scheduled contact). The online format begs also for specificity (as written communication demands greater clarity and succinctness than oral communication). In sum, the contribution of the present paper to the training and supervision process is that the results open the door to supervisors and supervisees to use online therapy along with the HSS and the CBS coding systems as potentially useful training tools.

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## APPENDIX

The following are narrated descriptions of the therapy cases. The narratives are presented with the purpose of providing the reader with a sense of the range of problems and issues the clients and therapists covered during the course of online counseling. All the names given are pseudonyms invented to protect the identity of the clients and therapists. The clients were either freshman or sophomores in high school.

### *Client A*

Ana, a Mexican-American girl, presented herself as a sibling in a fatherless family of four brothers and two sisters. Although she was living in foster care under the guardianship of Child Protective Services from the beginning of therapy, Ana did not disclose this detail until the 11<sup>th</sup> session. She had disclosed earlier that her mother was disabled and that she helped out by assisting her mother's nurses. From the 6<sup>th</sup> to the 11<sup>th</sup> session Ana talked about her disabled mother being back in the hospital and how she had to live with her grandmother. During these sessions Ana began to share with her therapists her vulnerabilities and anxieties. Ana disclosed/realized feeling conflicted about her pull to stay close to home for college and her desire to leave her family behind so she could get far away from home. She said she wanted to get away from the drugs and gangs that surrounded her. Eventually, Ana shared with her therapist that she resented her mother's inability to take care of her and her siblings. Ana's dissatisfaction was fueled by feelings of rejection and lost hope about ever gaining her mother's acceptance. The therapist eventually learned that Ana was living in foster care. Ana's

therapist suggested that she go out on a mom-daughter date. Ana responded with pessimism, explaining that her mother's boyfriend would disapprove. She later revealed that a daughter-mother date would require the approval of the CPS case worker, and in session 12 Ana wrote, all in capital letters, about how difficult it was to get in touch with her mother's case worker.

From here on, Ana became more focused on describing her immediate reality. She started to use the posts to relate and reflect on her life circumstances. Ana wrote about herself, about her thoughts and feelings regarding events as they happened to her. Ana confessed that she wished she were nicer to herself and to others. She lamented feeling so anxious so often. She told her therapist about being scared when another foster child was put in the hospital "cause she wanted to cumit cuicide." She appeared to use online therapy to have someone to talk to, to be listened to. In the 23<sup>rd</sup> session Ana told her therapist, "Im glad we can talk too cause I really got close to u and i didnt really feel like telling somebody else about my self."

### ***Client B***

Emily, a Mexican American girl, was highly preoccupied with her father's struggles with lung cancer and her assigned role as his and her sister's caretaker. Emily's mother put her in that role when she [her mother] decided to leave her father for a "new" boyfriend. Emily described a life full of obstacles and challenges, and although she attempted to portray a positive outlook in life, as therapy advanced, she kept revealing a profound pessimism of life in general. She perceived herself surrounded by conflict and

disappointments and resented never having the opportunity to be carefree, to be a regular kid.

Initially, Emily described serious challenges in her life, she told of her outrage over her mother moving out with her new boyfriend. She said she would even pretend she didn't have a mother. However, intermixed with her pains were slivers of hope. She related with pride how she interacted with the nurses to help her father and how she accompanied and took care of him during his chemotherapy sessions. However, Emily's posts changed substantially around the 15<sup>th</sup> session. She began to focus almost exclusively on airing her frustrations and wishing those around her would stop being so demanding of her. Most of the conflicts she described related to her younger sister and her father's expectation that Emily take care of her. Emily felt burdened with the "chore" of being her sister's driver. She felt frustrated with her dad, who couldn't say "no" to her sister and allowed her to do "whatever she wants." She wrote that her aunt told her that she (Emily) had taken the role of being a mother to her sister, which made her feel "hard because it's like I have a kid but I don't." The posts became the place where Emily could spill out her unhappiness.

### *Client C*

Pam was a 16-year old of unknown ethnicity to her therapist. She said she had lived on her own since she was 13-years old and was now living with her grandfather, taking care of him, feeding him, cleaning his house, feeding his pigs. Pam revealed details about her life as if she were handing out random pieces of a 1000-piece puzzle. In the end, after 25 posts, many pieces of her puzzle remained missing. Pam moved out of

her mother's home because her mother chose John, over her. John was an ex-convict, a drug dealer, and a drug addict, someone Pam had to call the police on often. It is highly possible that John was more than her mother's boyfriend; he might have even been Pam's father. This was never clarified through the course of therapy.

Pam said she moved in with her sister and her sister's three children, leaving behind her mother, another sister, John and their trailer home. However, living with her sister did not last. Pam grew tired of being a live-in sitter for her sister's children, "I felt like i was the mom and it pissed me off because I was just a preteen". From here she went to live with her grandfather.

Pam worked not for pocket money but because she had to. Although her job seemed to get in the way of her school performance, she felt her job helped her. Working kept her off the streets and helped her think only of what she had to do right there and then; she felt working helped her relax.

Pam said she was responsible, a "tuff girl phisicly & emotionally". She talked briefly about having aspirations and hoping she could one day become a builder. But Pam was a troubled teen. She disclosed blaming things on herself and punishing herself by cutting. She talked about "popping pills", and hating John, and about skipping school and smoking weed; which got her on probation for 6 months and 40 hours of community service. She then disclosed feeling so bad she wanted to cut deeper.

Her therapist spent two weeks regaining Pam's trust after her suicidal ideation was reported to Pam's school counselor. Their interactions returned to normalcy soon thereafter and Pam continued to relate her feelings and behaviors, but in a more focused

manner. A great deal of space was dedicated to discuss her cutting and her relationship with her mother. Pam tried to find comprehension by analyzing and reflecting on her past. Her cutting behavior did not go away but was considerably reduced. Pam did not stop struggling. She found a boyfriend, kept her job, promised herself she would do better in school, sought ways to find a chance, but kept struggling in the end.

### *Client D*

Jane, a girl of undisclosed ethnicity, lived with her mother, stepfather and three younger half-siblings. She was also a sister to three older, half-siblings on her father's side. She revealed early on that she did not get along with her mother and that both her mother and stepfather were "scared" that she was still doing all the "stuff" she had done in the past. Soon thereafter she identified the "stuff" as self-induced vomiting, and self-mutilation, cutting and burning herself. Another important secret she kept from her mother and stepfather was her romantic involvement with a schoolboy who had a bad reputation. Another important theme in Jane's conversations was her bottled up anger and her unhappiness.

Jane's anger and how she coped with anger were central to her self-image. She saw herself as a warrior, as a person who knew how to defend herself by being the most aggressive fighter. She explained she had little choice in the way she dealt with conflict and provocation. Jane said she was raised to hit or kick back because losing a battle would mean she would "get [her] butt kicked" whenever she got home. Nonetheless, Jane was aware of other manners to cope with her anger. She disclosed that she some times would scream into her pillow and write in her diary to express her feelings.

Overall, Jane was receptive to consider alternative ways for dealing with her anger, even if her initial motivation to not hurt her foes was in principle the fear of being sent to jail or having to pay a fine.

Her secret boyfriend, Ted, brought her considerable conflict and fear, as well as self worth. Jane thought her girlfriends started to treat her badly because they were attracted to Ted. In turn, Jane would become very jealous and angry whenever she thought her friends were flirting with Ted. At home, Jane felt she had no choice but to keep her affection for her boyfriend secret from her mother because she would not allow her to see him. In Jane's eyes, Ted was her only true ally, the person who loved her unconditionally. Moreover, Ted gave her purpose. First she worried about his drug use and drug dealing. After Ted was placed on probation and required to submit to periodic drug testing, her role became that of cheerleader and a counselor who would encourage and help him stay clean.

Jane's frustration at not being able to talk with her mom about Ted grew over the course of therapy. Towards the end of the semester, in considering the consequences of revealing her secret, she wrote, "My mom would probably hit me. My step dad would yell at me. Basically my life would be over." Although she was able to express explicitly what she would tell her mom if she could, she apologized to her therapist for not being able to have this conversation with her mom. She felt she was not a good daughter and listed all the ways that she had disobeyed her mom. She confided also that her step dad cared for her and seemed to always stick up for her, but that in return she treated him "like crap". It appeared that the only way she had not failed as a daughter was by

keeping her virginity, “I have done everything she wants me not to do. Except for having sex”.

*Client E*

James, a 16 year-old boy of unknown ethnicity to his therapist, disclosed in the first session that he was gay. He questioned his therapist about working with someone that was gay and asked him if it made him "feel uncomfortable." From this first session, James wrote in abundance, often finding two times in the school day to write. He was a consistent and engaged participant and apologized the one time he had to make up a test and wasn't able to go online to write. James seemed appreciative of his therapist's interest in him and appeared to feed off of the attention. In the second session, James explained that his recent breakup with his first love left him lonely and miserable. He explained that he had even come close to prostituting his body in order to fill the void that he felt.

Most of what James shared was of his inner experience of feeling depressed and lonely and of his sensed inability and stubbornness to move on with his life after his breakup. His therapist learned of James's support network and family life in bits and pieces, mentioned only in reference to their inadequacies or helplessness in aiding him out of his misery. His walks with his aunt served to help relieve James's stress and to give him fresh air, outside the trailer where he lived with four other people.

From session to session, James moved from feeling slightly better and hopeful about accepting the breakup to feeling angry and bitter toward his ex-boyfriend. He spent many sessions either describing his plans to win his boyfriend back or his plans to



ruin his boyfriend's life. James was painfully harsh in his descriptions of his thoughts and behaviors. He shared that he had become "more of a whore than ever" but just wanted to fill the empty void inside of him.

There were sessions when James attempted to reframe his misery and to see the positives in his life. He talked of his loving family and of a teacher that cared for him along with the school counselor. Towards the middle of the semester, James disclosed that his school counselor prompted him to reconnect with the teacher that led the school group he used to attend and that he did follow this advice. From then on, James wrote about his strengths, his spirit and his willingness to stick up for himself. Yet his positive sense of himself seemed fleeting, as he was quick to self-criticize and to assure his therapist that he wasn't getting better at all. He often began a session by writing, "What's up?? A lot of nothing over here, same stuff different day." Through the semester, James struggled with his loneliness, neediness, his wanting more attention, his broken heart and his depression that most often left him crying all weekend long "listening to the music that [his] tears [made]." In the last session, James reviewed his progress in recovering from this "emotional scar" and explained to his therapist that he was getting out more and helping out his family more as well. He shared that his self-esteem seemed to have grown and his final words were "I feel fairly good about myself."

### ***Client F***

Tara, of undisclosed ethnicity to her therapist, said in the first session, that her parents divorced when she was 5 years old. She is the youngest of four children and shared that she often felt like an only child. Tara explained that even though the divorce

happened a long time ago, she still cried about it and how it bothered her to be around friends that had both parents. She wrote, “i get kind of jelous but i try not to”.

Tara showed a lot of enthusiasm in her writing and when describing her favorite club, BOB (Bunches of Believers) she said, “I love it!!!” Had she known how make the smiley emoticons she often received in her e-correspondence, she “would have made 10”. In early sessions, Tara talked often of her extra curricular activities, how she felt stressed from being so busy but also felt the effort was worth it to her. Tara’s health was frail and she was often ill, particularly during the early online sessions of the semester. A chronic asthmatic, she explained her absences were due to respiratory illnesses. Tara said that being in and out of the hospital due to her asthma was a common occurrence for her.

Eventually, she quit her track team because she would always be last and this upset her. She disclosed that she often cried for no apparent reason but that her tears seemed to help her feel relief.

Midway through therapy, Tara started to talk about her boyfriend. She introduced him saying, “He used to be abusive”. Session by session she described incidences of how he made her feel degraded and hurt. She wrote about him being controlling and jealous. It drove her mad that he could not trust her. She used the online communications to try to comprehend why he was so suspicious and what that meant about him. Tara struggled and fluctuated between wanting to reframe her boyfriend’s behavior in a positive light and finding excuses for him, to realizing his serious flaw and being puzzled by her decision to stick with him.

Sharing how she had stuck up for a friend and demanded that he be treated better by his date, Tara began to wonder how it was that she was strong on behalf of friends but not for herself. Tara worked with her therapist further on what she wanted from a relationship, what needs she hoped to fulfill from a relationship and the realization that her boyfriend was not what she wanted. She worked to find the strength to break it off, which she ultimately did. Eventually, restraining orders were needed to stop her boyfriend's persistent and inappropriate advances.

## VITA

Following two years of study at Bennington College (1981) and the Universidad de Salamanca, Spain (1982), Lisa Marie Cepeda received her Bachelor of Arts degree in Spanish from The University of Wisconsin at Madison in 1985. She then obtained a double teaching certification in Secondary Education-Spanish and Language as a Second Language from the University of Wisconsin—Milwaukee in 1987. After teaching Spanish to high school students for many years, Lisa Cepeda entered the Counseling Psychology program at Texas A&M University in August 2002, received her Master of Science degree in May 2004. Lisa Cepeda completed a pre-doctoral internship at the Student Counseling Services Clinic of Texas A&M University and received a Doctor of Philosophy degree from Texas A&M University in 2008. Her career interests include therapy supervision of clinical and counseling psychology students and the professional practice of Counseling Psychology.

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