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Critical Success Factors for Electronic Therapy—A Delphi Study

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Abstract:

E-therapy employs a cross-section of online psychotherapies that use many of the same traditional face-to-face techniques as psychotherapy by exploiting electronic synchronous communication between a patient and trained therapists (counselors, psychoanalysts, or other licensed practitioners). A Delphi study of practicing therapists revealed five critical success factors (CSFs) (technological, managerial, empathic, service quality, and legal) that are important influences in the implementation of e-therapy services. Results suggest that managerial and legal factors hinder wider acceptance of e-therapy services. Secure and effective communication channels and protection of patient data emerge as important themes in the context of the five CSFs as concerns of potential e-therapists in wanting to provide effective care to patients.

Keywords: E-Therapy, Delphi Study, Critical Success Factors, E-Health, Cyber Therapy.

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I. INTRODUCTION

Online counseling or e-therapy can be an alternative way to visit a therapist without the difficulty of traveling to the therapist's office, being seen in public at a therapist's office, being worried about access or therapist availability, or being limited to established working hours. The Internet and associated communication technologies (Web 2.0) are an effective alternative channel to deliver medical services (Greene, 2000). Cyber therapy can offer improved patient engagement by focusing on the use of technology to improve conjoint emotional (feel), cognitive (think), and conative (act) enactment of individual patients as they manage their health issues (Wiederhold & Riva, 2013). As one human computer confluence (HCC) study suggests, the symbiotic relationship between humans and computing devices can enable radical new forms of sensing, perception, interaction, and understanding (Viaud-Delmon, Gaggioli, Ferscha, & Dunne, 2012). Medical care providers understand the significant role that web-enhanced technologies can play in reaching new patients, informing patients of health related information, providing services to patients, and screening patients to guide them to appropriate healthcare facilities. Since the early 1990s, e-therapy has been considered a viable treatment option, but, for other than antidotal reasons, e-therapy is not a mainstream choice for patients or therapists (Grohol, 2011).

As to why e-therapy is not a mainstream choice for patients or therapists, some studies suggest the lack of clear ethical and legal guidelines in the delivery of online services, typically in the use of websites or other social media interactions (Matthews, 2006; Patricia, 2006; Shaw & Shaw, 2006). Yet, in spite of the needed clarity about ethical and legal guidelines, Web 2.0 and associated technologies are transforming doctor-centered healthcare into a patient-centric healthcare system with the potential to enable people to become more actively involved in the management of their healthcare (Centore & Milacci, 2008; Deluca & Enmark, 2000; Glaser, DeLuca, Enmark, & Alemi, 2000). Online communities exist for individuals with mental disorders and a desire to understand and overcome their personal issues by adopting more appropriate behaviors (Smedberg, 2008). These support groups use information technology to create websites, bulletin boards, mailing lists, and social network sites as a means to transfer knowledge between members regardless of legal and ethical guidelines (Ghazali, Tretiakov, & Hunter, 2010). In addition to social networking, virtual reality (VR) technologies can duplicate the physical world in a way that promotes psychological health and well-being and allowing the interaction of avatars that can positively affect users psychologically and physically (Morrie, Haynes, Chance, & Purohit, 2012). Further, recent studies suggest people are much more willing to answer questions on sensitive issues (e.g., aging, caregiver issues, disease, depression, and prescription) using web technologies rather than by phone or face-to-face interviews (James, 2012; Jennifer, 2005). This raises the question: if individuals are willing to share their lives with unfamiliar strangers in a networked world, why would they be unwilling to share their lives with mental health professionals that have the skills, the training, and the understanding to guide patients toward more appropriate behaviors?

In a national sample of 2, 098 social workers, psychologists, and other professionals, Wells, Mitchell, Finkelhor, and Becker-Blease (2007) found that only about 2 percent of the mental health professionals sampled and about 1 percent of mental health counselors used the Internet to provide therapy or counseling (Wells et al., 2007). However, mental health therapies tend to be conducted and managed from small offices and clinics and are focused on solving patient problems rather than improving data collection and communication methods. In this context, previous research in e-health looked at the critical success factors for integrated healthcare systems and the need to adopt a macro model with respect to wireless initiatives (Dwivedi, Wickramasinghe, Bali, & Naguib, 2007; Nazi, 2003). It is clear from the literature that e-therapy can work but adoption has been slow. We think understanding why the adoption process is slow is worthy of study and, as such, this research paper investigates the critical success factors needed to implement the Internet and communication technologies in the micro context needed to conduct interactive electronic therapy sessions using a Delphi study approach.

In Section 2, we discuss electronic health and electronic therapy as a subset of e-health. In Section 3, we present The Delphi study's methodology, data collection, results, and conclusion. In Section 4, we end with study limitations and directions for future research.

II. E-HEALTH AND E-THERAPY

E-health has two main objectives. First, it provides more information and power to patients, and allows them to be more active and responsible for their own healthcare needs. The Internet has created an opportunity to increase patients' awareness about their medical condition(s) and treatment options by allowing support from peers through

medical social networks and the sharing of information and knowledge about treatments and their side effects from different websites (Tan, Cheng, & Rogers, 2002). Such information should be carefully evaluated because many websites contain promoting products or scams that may misinform the patients. At the same time, patients may lack the skills to accurately evaluate the online health related information because they don't have formal medical training (Morahan-Martin & Anderson, 2000). Secondly, the Internet allows for the administering of healthcare to be more efficient and effective because healthcare interactions are supported by communication technologies (Jung & Berthin, 2009). The end result is that patients are better informed about their medical condition and are able to more effectively discuss their treatment options with healthcare providers.

E-therapy falls under the broader umbrella of e-health. To further clarify, the e-health concept is an effort to apply the Internet, information technology, and communication technologies in an interactive way to provide general health services and access to health records and health information in order to improve personal development and patient wellbeing. The whole purpose of e-health is to establish and support both the asynchronous and synchronous communication between patients, caregivers, government agencies, and other medical organizations to provide information, guidance, support, and service on health-related issues (Coleman, Herselman, & Coleman, 2012). E-therapy is even more specific.

E-therapy seeks to use technology to induce a clinical change in patients. More specifically, e-therapy is "the use of computers as tools to make possible and/or to improve the supply of therapeutic services" (Alcaniz, Botella, Banos, Zaragoza, & Guixeres, 2009). It is "a licensed mental health care professional providing mental health services via e-mail, video conferencing, virtual reality technology, chat technology, or any combination of these" (Manhal-Baugus, 2001). Such services provide many benefits to patients, such as helping people who live in rural areas, underserved urban areas, and prisons to receive medical services that were not provided previously (Tan et al., 2002).

Several studies conducted on Internet based e-health systems suggest that e-therapy can be useful. A research study on child psychiatry assessment performed over a PC-based video conferencing system found that 96 percent of assessments made via videoconferencing systems were the same as face-to-face meetings. Furthermore, most of the parents found the videoconferencing system more convenient to their schedules because it eliminated traveling time (Riva, 2000). Other successful applications of e-therapy have successfully aided patients in controlling panic disorders (Klein, Richards, & Austin, 2006), depression (Anderson et al., 2005), and post-traumatic stress symptoms (Lange, van de Ven, & Schrieken, 2003). While it's generally assumed that technologically assisted therapy reduces costs, cost effectiveness studies have not recognized the costs of development and maintenance of this therapy (Emmelkamp, 2011).

E-Therapy Opportunities

E-therapy provides enormous opportunities for both providers and patients beyond the general benefits found in the e-health context. By understanding patient and caregiver expectations, healthcare professionals can provide patient services that will be acceptable and useful (Jung & Berthin, 2009). Postel, de Haan, and de Jong (2010) found in a study of problem drinkers that e-therapy proved to be feasible and attracted patients who otherwise were unlikely to seek help (Postel et al., 2010). Moore, Guthmann, Rogers, Fraker, and Embree (2009) found that e-therapy demonstrated promise in more economically reaching a larger number of deaf patients in America (one of the most disenfranchised groups in America) while providing culturally appropriate and comprehensible recovery support options for substance abuse disorders. Some e-therapy benefits might include:

- **Cost reduction:** patients are able to obtain healthcare information efficiently and effectively via communication technologies. Therefore, time spent physically with doctors and in healthcare facilities is reduced and used more efficiently, which reduces patient stress and the overall cost of the services (Jung & Berthin, 2009). Further, patients can eliminate travel time and schedule appointments during severe weather, vacations, and so on, which reduces the time spent in therapy and accelerates their return to productive lives.
- **Empowered consumers:** Internet connectivity can provide consumers with an enormous amount of information about diseases, treatments, and environmental factors, which influence their health conditions. They may learn about facilities and doctors who can better help their health conditions. Patients are able to better understand their health conditions, become less dependent on medical professionals, and better understand their choices of treatments (Jung & Berthin, 2009). They also have the option of interacting with other patients and families with similar maladies.
- **Improved access:** e-health makes 24/7 access to healthcare services possible. Distance and time are no longer barriers for obtaining information and service in a timely manner (Jung & Berthin, 2009). For instance,

e-therapy patients could be treated remotely in rural areas where mental health services may be limited or non-existent.

- **Better information quality:** application of communication technologies increases the accuracy of information exchanged among healthcare facilities, practitioners, insurance companies, governments, and patients (Jung & Berthin, 2009; Schiavo, 2008). Mental health patients need not rely on one information source, but could access multiple experts in order to consider other options or confirm their quality of care.

Pitfalls and Challenges of E-Health and E-Therapy

E-therapy faces challenges and obstacles related to acceptance of such services and difficulties to deliver these services. These include:

- **Asynchronicity:** while information is available 24/7 on the Internet, medical staff who provide medical services may not be. This discrepancy may cause misunderstandings of what services may be available or not, which could cause false expectations on the patient's side (Jung & Berthin, 2009). Mental health experts may lack the training, technology, and online sophistication to use social media effectively.
- **Better communication networks:** medical applications require higher-level services from communication networks in order to deliver medical services. Real-time medical interactive applications require better latency and good voice and image quality during the sessions. E-therapy needs symmetric link speeds that are not commonly available on current networks. Interactivity and bandwidth are the most important issues to deal with during an interactive medical session (Tan et al., 2002). Mental health experts and patients may underestimate the need for higher quality technology services than what the average person may consider adequate.
- **Privacy, confidentiality, and security:** patients have privacy and security concerns about the possibility of medical information being monitored, tracked, misused, or abused without their awareness and/or consent. Medical information exchanged over the Internet should be encrypted and securely transmitted to its destination (Jung & Berthin, 2009; Tan et al., 2002; Dwivedi et al., 2007). Mental health records are extremely sensitive whereby misinterpretation and social stigma may have greater adverse impacts than the inadvertent release of a typical healthcare record.
- **Physician income:** adoption of e-health applications may be opposed by medical staff because they fear losing part of their income (Jung & Berthin, 2009) or the lack of reimbursement for services rendered (Tan et al., 2002). Technology purchases and support may cost more per billable hour than the benefit of remote access compared to meeting in an office.
- **Mediated interaction:** patients may prefer one-to-one interaction with doctors or therapists rather than use virtual services. Many patients want to be "touched" by the physician while they are receiving medical care (Tan et al., 2002). Virtual services can make customers feel cut-off and anonymous. On the other side, doctors hesitate to provide such services because of the risk of being misunderstood (Jung & Berthin, 2009).
- **Access difficulty:** Internet and computers are not accessible and affordable for everyone. Internet technology is expensive and requires several skills. Patients need to use computers and other peripheral devices, have access to the Internet infrastructure, and have some computer literacy skills to access online healthcare services (Jung & Berthin, 2009).
- **Liability issues:** care givers require information about laws and standards governing healthcare in different markets and locations. So far, there is little regulation about liability issues with regards to telemedicine. Care givers are hesitant to get involved until a defined legal framework is approved and accepted (Tan et al., 2002; Dwivedi et al., 2007).
- **Medical licenses to practice:** e-therapy allows the delivery of medical services across state and country lines, and perhaps international boundaries. Some states have strong requirements for medical licenses that prevent out-of-state and out-of-province medical care. Such requirements make the delivery of virtual medical service harder for mental health experts since they would need separate state licenses (Tan et al., 2002).

Identifying factors from the e-therapy literature base provides a starting point to understand which factors therapists consider the most important issues in addressing how to implement e-therapy in a practice. Rockart (1979, pp. 85) was the first to suggest that executives focus on certain factors, which, if they are successful “will ensure successful competitive performance for the organization. There are a few key areas where things ‘must go right’ for the business to flourish” (Rockart, 1979). Critical success factors (CSFs) tend to have commonality in a given industry (Hofer & Schendel, 1978) and vary across industries, where the success factors result from the interaction of economic and technological factors specific to an industry. Barat (1992) argues that CSFs are similar in the same industry because organizations and businesses in the industry maintain mainly similar structures and use similar business strategies (Barat, 1992).

There is a lack of literature concerning CSFs in the healthcare industry. It’s not perhaps that the healthcare industry doesn’t consider CSFs, but rather that they use a different terminology at odds with the use of information technology, which is much more literal. This is especially true of e-therapy, which is a novel and experimental approach to providing care. In Section III, we use a Delphi study to discover e-therapy CSF’s and be able to confirm which e-therapy benefits or disadvantages are considered most important by therapists.

III. THE DELPHI APPROACH METHODOLOGY

The Delphi method is an iterative process that collects and refines experts’ anonymous decisions using a series of data collection and analysis techniques interspersed with feedback (Dalkey & Helmer, 1963; Skulmoski, Hartman, & Krahn, 2007). Experts are presented with a list of factors that they rate on a Likert scale or add to the list. The factors are ranked in subsequent rounds with participants being able to change their ratings based on ratings of their peers until there is little or no change between experts. The method is recommended in situations where no historical data exist or when such data are inappropriate (Rowe, Wright, & Bolger, 1991). The main issues are the selection process of experts, the number and types of factors to be evaluated, and the number of rounds to conduct. Rowe et al. (1991) recommended that researchers define some “premeditated selection procedure” of expert selection, which are adapted according to the particular problem domain, with a key aspect being the choice of experts. Other discussions on this issue suggest that expert selections should be based on an expert’s reputation, publication, and professional track record (Skulmoski et al., 2007; Webler, Levine, Rakel, & Renn, 1991).

There is a wide range of sample sizes in these Delphi studies (Skulmoski et al., 2007). Potential sample size is positively related to the number of experts one can control, and one should be aware that views of the sample participants may not be representative of a wider population, which may limit the authors’ ability to generalize the results. The number of rounds is variable and dependent on the research’s purpose. It is suggested that two or three iterations of the Delphi method are sufficient for most research (Delbeq, van de Ven, & Gustafson, 1975).

It is important to consider what happens between rounds of the Delphi study. Does expert agreement occur in a constructive way with experts refining their judgments, or have the experts just agreed with the majority? Greatorex and Dexter (2000) suggest that this question can be answered if the researcher(s) approach the experts and get insights on why they changed their opinions (Greatorex & Dexter, 2000). Understanding the agreement process can impact the reliability of the method and limit the generalizability of the results. Kastein, Jacobs, van der Hell, Luttic, and Touw-Otten (1993) found that the Delphi method had a high level of reliability, while Barat (1992) doubted the overall reliability of the Delphi methodology based on the inability of participants to generate the big picture of the problem under study doubting on the overall reliability of the Delphi method (Barat, 1992; Kastein et al., 1993).

Description of Data Collection

We developed our Delphi questionnaire from issues raised in the literature review. During the development process, we paid special attention to the clarity of the questions and pre-tested them with a lead therapist, the owner of a therapy center. After this pre-testing, we added, modified, and deleted questions as necessary. We then developed and organized five question themes to group questions together in order to better analyze and organize the results. These five themes were: technology, management, empathy, service quality, and legal issues.

The technology theme included factors related to hardware and software. The management theme looked at questions related to managing the online physical relationship between patient and therapist, business factors, and opportunities to grow the business. The legal theme identified regulatory issues. The empathy theme grouped factors together associated with the emotional connection between patient and therapist. The service quality theme compared expectations with anticipated e-therapy performance. Both researchers identified themes separately with any differences being resolved after careful discussion.

Study participants worked for a single psychological center that had the ability to provide online therapy sessions. Online therapy may have been conducted in concert with traditional therapy but the number and context of any

therapy will remain unknown. We contacted them with the assistance of the center's owner. One of the researchers contacted all psychological centers listed in the yellow pages of a major metropolitan city near our workplace. We asked only organizations providing face-to-face and online therapy to participate in the study. Importantly, only one psychological center responded that they provide online services if patients asked, which underscores the limited acceptance of e-therapy and the need to better understand impediments for wider acceptance of this therapy methodology.

Participants in the study were licensed therapists providing psychological services in a city located in the Midwest, USA. Therapists had a Masters or Ph.D. and must have passed a rigorous state licensing exam to practice in their state. Out of eight therapists who were invited to participate in the study, seven responded positively to our request. To enrich the participation level, we arranged face-to-face meetings with each therapist in order to increase their awareness of the study's nature. Table 1 summarizes the respondents and an overview of the questions included. An important observation is that all of our participating therapists were women. This is not unexpected as women make up approximately 90 percent of the American Counseling Association's membership (Carey, 2011).

Table 1. Summary of the Delphi Study

Details of the Delphi study	First round	Second round	Third round
Location of Participants	1 Local Psychological Center	1 Local Psychological Center	1 Local Psychological Center
% of Participation	100%	100%	100%
Participants	7 Females	7 Females	7 Females
Questionnaire Type	Structured and Unstructured	Structured	Structured
Number of Factors Introduced According to contexts	Technology 4 Management 12 Empathy 8 Service Quality 16 Legal 6	Technology 4 Management 12 Empathy 8 Service Quality 16 Legal 6	Technology 4 Management 12 Empathy 8 Service Quality 16 Legal 6

While larger sample sizes for a Delphi study are desired, other Delphi studies in the healthcare field and other areas have also been done with small sample sizes ($n = 3$ and 4) (Skulmoski et al., 2007). An Internet-mediated Delphi study with seven experts from four European countries yielded a consensus on a definition of sensory relearning and its indicative content (Jerosch-Herold, 2011). Twelve experts suggested that introducing pretesting for polymorphism of serotonin transporter promoter region (5-HTTLPR) as a routine intervention in clinical practice genotyping will lead to 33.8, 48.2, 57.8, and 65.1 percent of patients reaching remission at one, two, three, and six months, respectively (Oestergaard & Moldrup, 2010). There appears to be no ideal number for a Delphi panel because the sample size is often dependent on the research topic and research context (Skulmoski et al., 2007). Small panels are more likely to remain intact (Reid, 1988) and can achieve a reliable outcome, particularly where the experts are subject to strict inclusion criteria and are equally well qualified in, and informed about, the area of enquiry (Atkins, Tolson, & Cole, 2005). Conversely, the larger the sample, the more potential for richer and more varied the data. However, its validity has its own detractors because there may be practical problems relating to data collection, data analysis, panel administration, and control.

The Delphi study required three rounds of data collection. As such, we conducted three rounds in a five-week period. We conducted the entire process (i.e., sending the questionnaire and receiving the responses) via e-mail. We obtained participants' telephone numbers and e-mails in case we needed to send reminders.

The first round questionnaire included two parts. Part one included the structured questions that belonged to the five different themes. Each theme included factors identified in the literature review. Four factors represented the technological theme, 12 factors represented the managerial theme, eight factors represented the empathy theme, 16 factors represented the service quality theme, and six factors represented the legal theme. Part of the first round questionnaire was unstructured. This part asked five open-ended questions about online services, the differences about online and physically present services, costs, and legal issues.

The final two rounds included only structured questions. The numbers of questions were the same as the first round because the therapists suggested no new factors. We provided each respondent with the information obtained in the previous round, and included the group average for each factor and their own individual rating of each question. We asked respondents to review the group and personal ratings of each factor and change their ratings if they wished

to. Respondents made multiple changes made during the second round and very few changes during the third round. The data collection concluded at the third round because the referees concluded there would be no benefit in conducting a fourth round.

Delphi Analysis

We used descriptive statistics and a non-parametric test (K-related samples) to analyze the data collected. We noticed potential success factors at the end of each round based on the average scores derived from the experts' ratings. They ranked factors such as secure and confidential network, understanding the patient, having a good voice and image quality during the sessions, and legal issues as important factors. They ranked other factors related to group therapy, cost, and the potential of online therapy to become a new profession with a consistently low rating. We listed the factors based on these ratings from highest to lowest.

We analyzed factors based on their level of importance and obtained insights from our experts by grouping the factors based on theme. We obtained group averages for each of the five themes for each round of data collection.

We used a non-parametric test, Kendall's W, to test the rate of agreement between participants. This test is important to justify the results obtained. The coefficient of concordance obtained through Kendall's W test was .453 in the first round, .661 in the second round, and .679 in the third round. These results show that the level of agreement among the participants increased during the study and that the level of agreement was considerable in the third round. We decided to end the survey after the third round because we got an acceptable level of the coefficient of concordance (above .5) and because we made few changes in the third round.

Results from Our Delphi Study

We rank the results by importance. Table 2 shows the top 25 percent and the bottom 25 percent of the factors perceived as important from the respondents perspective. Table 2 lists not only the questions asked in the survey, but also the themes (where, e.g., T1, T2, etc. stand for the first and second questions of the technology theme; SQ 1, SQ2, etc. stand for service quality, and so on).

The therapists rated technology factors, such as secure and confidential exchange of information and real-time communication between patient and therapist, highly. One of the experts said:

It is important that the online/tech connection is strong and non-intrusive so the clients do not feel that they are receiving sub-par services. A good camera and connection should allow for a wide range of non-verbal communication, which is important.

Our experts rated the technology theme very high, but the empathy theme provided the most individual comments. The empathy theme reflected the important of a therapist understanding a patient's needs and establishing a working relationship in the online context. In response to an open-ended question during the first round of data collection, one expert said:

- "Communication is greatly enhanced in face-to-face interactions due to body language and non-verbal. I can see great potential for misinterpretation or misunderstand in online therapy."
- "Physical presence appears important—silence in the room has an intense effect that would not be as influential if not for face-to-face."
- "It might take a little longer to get to know their personality characteristics, patient tone on phone could be taken wrong, if for not knowing the person, or being able to see them or their non-verbal's."
- "The importance of developing rapport is significant—may be more of an obstacle to some than others."

In the management theme, therapists wanted to obtain and use an online service that they could trust with confidential information and that could ensure an accurate exchange of information between all parties involved. Our interpretation of these factors is that therapists wanted management to provide and maintain e-therapy technologies so they could worry about the patient. The role of management is to create an environment where the technology is as unobtrusive as possible.

Therapists were very concerned about online patient location because of personal liability and licensing issues and made insightful comments in the open-ended section. Primarily, they were concerned about the guidelines

established by American Psychological Association (APA) and the legal and professional consequences that online therapy could bring to them if they did not detect suicidal cues if there were any. Some of their comments:

- “Most states do not have clear guidelines for online therapy, and the APA has recognized that there is a need and a way to improve the difficulties with accessing therapy for some people. APA has developed a task force to address this and develop guidelines. States that do have guidelines suggest that it is necessary for the therapist to be licensed in the state where he/she is physically located, as well as where the client is physically. This presents difficulty in some geographic areas such as us, where we are near a metropolitan city in another state being so close to us, but requires another state license. I hope that there can be a national arrangement to address this issue.”
- “There needs to be clearer guidelines and laws around tele-health.”
- “Perhaps liability regarding safety- as a therapist may not be as able to pick up on suicidal/homicidal cues.”

Service quality (SQ) context factors were not rated as high as other factors and trended toward the bottom of the factor rankings, making them difficult to interpret. The therapists rated five of the SQ factors in the bottom 25 percent, such as using technology for online support groups and communities, and using mobile devices for mental health access. If management’s purpose is to make the technology as unobtrusive as possible, then service quality factors related to technology would not be factored in at all. Service quality would be related to the quality of care of the therapist and technology would be ubiquitous. Ultimately, it may be the lack of experience by the e-therapists in using e-therapy that the therapists rank this factor to be of low importance.

Table 2. The Ranking of the Factors in the Delphi Study and the Themes for Each Factor (Technology – T; Management – M; Empathy – E; Legal – L; Service Quality – SQ)

Ratings round 1	Ratings round 2	Ratings round 3	Context	Factors
4.9	5	5	T1	Secure network exchange of medical information.
5	5	5	T2	Confidential network exchange of medical information.
5	5	5	M1	Patient has access to a computer in a confidential location
5	5	5	M2	Patient has Internet service
4.9	4.8	4.8	E1	A doctor really understands what is going on with the patient.
4.9	4.8	4.8	L1	Liability issue of the location where the patient is located.
4.7	4.8	4.8	T3	Real-time communication between patient and therapist.
4.7	4.7	4.7	E2	Establishing a working relationship with the online patient.
4.7	4.7	4.7	E3	A patient’s trust on the service obtained via Internet.
4.6	4.7	4.7	M3	Information exchanged among your facility and other organizations, such as hospitals, pharmacies, insurance companies, government, etc. is correct and accurate.
4.6	4.5	4.5	SQ1	Good voice quality during the therapy sessions.
4.4	4.5	4.5	M4	Patient has basic computer literacy skills.
4.4	4.5	4.5	E4	Achieving an emotional relationship with the patient during electronic therapy sessions.
4.6	4.5	4.4	SQ2	Allowing patient access to mental health services if face-to-face mental health services are not available.
4.3	4.3	4.3	T4	Minimal delay times between therapist and patient in communication
4.3	4.3	4.3	SQ3	Image quality during the therapy sessions.
3.9	4.2	4.3	M5	Patient owns a computer
4.4	4.3	4.2	SQ4	Potential to serve patients where travel for either the patient or therapist is difficult.
4	4.0	4.2	L2	Will require different professional standards of conduct to use
4.3	4	4	SQ5	Will open up patient access to mental health professionals
4.1	4	4	SQ6	One more way to reach patients.



Table 2. The Ranking of the Factors in the Delphi Study and the Themes for Each Factor (Technology – T; Management – M; Empathy – E; Legal – L; Service Quality – SQ (cont.))

Ratings round 1	Ratings round 2	Ratings round 3	Context	Factors
4.1	4.2	4	L3	Insurance companies will authorize reimbursement options in the future.
4	3.8	3.8	E5	Increasing the patient's knowledge about their therapy
3.9	3.8	3.8	SQ7	Sharing reliable reference information between patient and therapist. For example if a patient shows a picture, the clarity of that picture.
3.3	3.7	3.8	L4	Having the medical license of the state where the patient resides.
4	3.7	3.7	SQ8	Increasing the patient's overall knowledge of mental health services
3.7	3.7	3.7	M6	Potential to increase the profitability of the therapists practice.
3.7	3.7	3.7	M7	Increased technical training will be required for the profession
3.9	3.5	3.5	SQ9	Allows for a mix of online and face-to-face office meetings for therapist/patient convenience
3.6	3.5	3.5	M8	Obtaining patient's information from other healthcare services, such as hospitals, pharmacies, insurance, government, etc.
3.4	3.5	3.5	M9	Increases the number of patients a therapist might be able to serve.
3.9	3.3	3.3	L5	Local, State, and Federal governments will move in this direction in the future.
3.6	3.3	3.3	SQ10	Patients will request e-therapy as a future therapy option
3.6	3.3	3.3	SQ11	The likelihood that e-therapy could remove the stigma of mental health treatments from mainstream stereotypes.
3.1	3.3	3.3	E6	Ability to touch, see, look at the patient.
3.7	3.2	3.2	M10	Allows for increased contact with patients outside of traditional office hours
3.3	3	3	SQ12	More online support groups will be created using this technology.
3.3	3	3	SQ13	Future likelihood of access to mental health professional via mobile devices
3.1	3	3	M11	Reducing the cost of therapy services.
3.1	2.8	2.8	SQ14	Using the anonymity of online communication to serve restricted groups of patients
3	2.8	2.8	L6	Will allow more quack therapists to enter profession as technology advances
3.1	2.8	2.7	SQ15	Online support groups will use this technology
2.7	2.7	2.7	M12	Will become a separate field within our profession
2.9	2.5	2.5	SQ16	Potential to conduct group therapies remotely
2.7	2.2	2.2	E7	Using the less personal nature of online communication to open dialogue with patients over intimate topics that are difficult to open-up to face-to-face.
2.6	2.2	2.2	E8	Will confuse patients rather than help.

By regrouping the factors as shown in Table 3, we suggest that technology and management are the most important context for online therapies, while service quality is the lowest. The relationship between management and technology underscores that the cost of acquisition, maintainability, training for both patient and therapists, management of technology within an e-therapy setting are closely related. We would suggest that if management could make e-therapy technologies unobtrusive and ubiquitous, only legal and ethical concerns would hinder a therapist's intention to use E-Therapy as one of their tools to support patient needs.

Table 3. The Rankings within the Contexts in the Delphi Study			
Ratings round 1	Ratings round 2	Ratings round 3	Themes
4.73	4.78	4.78	Technology (T)
3.9	3.9	3.9	Management (M)
3.87	3.8	3.82	Legal (L)
3.89	3.78	3.78	Empathy (E)
3.81	3.58	3.56	Service quality (SQ)

IV. DISCUSSION

Successful e-therapy sessions must be supported by adequate technology. Technological factors related to networking and real-time communications are the strong foundation of an online therapy session. After the appropriate technology is in place, other factors become important for a successful online therapy session. Management, legal and empathy factors play a significant role in creating and managing a successful online relationship with a patient. It is also important to understand that, even using basic technology to replace, extend, or supplement traditional therapy sessions, to the therapist should protect the personal rapport needed for sustained participation in therapy (James, 2012). Therapists may consider a hybrid treatment model where patients develop a relationship with their therapist overtime allowing for a lower cost treatment option. It must also be made clear that the business model for E-Therapy is based in the small business context and not-necessarily supported or used by large healthcare institutions with larger IT budgets.

One of interesting factors in this study is cost. While reimbursement from insurance companies is an important consideration on the patient side, the issue of cost reduction may not be an issue from the provider side. This finding means that healthcare providers are interested in providing a broader variety of services to their patients, and are trying to reach them at their convenience, such as during the patient's lunch break, allowing a patient not to leave work, etc., but they are not using it as a means to increase their profit margin, increase their number of patients, or making more money. This suggests that there may be a disconnect between the healthcare providers providing patient services and the healthcare administrators who manage the business and pay the salaries and benefits of employees (Hackbarth, Cata, & Brandser, 2013). There may be other cautionary issues to cost. As patients become accustomed to lower online costs there may be a trend to lower cost e-therapy costs and perhaps give free services. For instance, while virtual reality (VR) and Internet based psychology have shown some promise, there is no convincing evidence that VR and internet based therapy are more cost effective than the more traditional (face-to-face) therapy (Emmelkamp, 2011). The key point is that e-therapy may be less expensive for the patient, but the cost to the business to manage, purchase, and support technology may result in an unsatisfactory realignment of resources resulting in lower pay and benefits for therapists and better services for the patient. This model could force more therapists to work for large healthcare organizations with more IT resources, driving small healthcare businesses out of business.

Limitations and Future Directions

Study results are based on a small sample of therapists which may not be generalizable to the larger population or prescriptive in nature. Being able to analyze results from additional therapists from other offices would be advantageous for future studies. Legal, administrative, and insurance reimbursements are constantly changing as is the available technology needed and used by therapists wanting to implement e-therapy. Further, there are aspects of running a successful counseling private practice business that may impact the way therapists respond. A successful counseling business model must develop and maintain ongoing and appropriate referral sources, being able to manage finances, handle insurances, and deal with patient billing in order to keeps costs in line (Anje, 2013).

In the future, studies could be done with the psychological centers that do not support e-therapy to better understand the impediments to e-therapy implementation and implications for differing financial reimbursement models. We did not evaluate patient perceptions of e-therapy so the particular lens of using therapists is partially influenced by their assumptions of how patients perceive e-therapy. More research into perceived legal and ethical barriers would seem prudent and in particular, what changes to laws, administrative rules, and work guidelines would be necessary to encourage a wider use of e-therapy techniques.

It is hoped one day to evaluate patient impressions of e-therapy if the appropriate numbers and permissions of patients can be obtained. Future research might include actual and theoretical calculations of e-therapy costs to include projected reimbursements and cost per patient numbers. Further, the cost of obtaining, maintaining, and developing suitable technologies might result in a cost-benefit study to see if e-therapy makes financial sense as opposed to the benefits of traditional delivery of therapy. It would also be useful to evaluate the quality of online information available about mental health, the degree to which mental health patients use online information to

diagnose and treat themselves, and compare the results with traditional therapy. Antidotal evidence suggests that insurer attempts to support e-therapy have been poorly supported by patients, yet as technology develops, becomes more mobile, more affordable, more ubiquitous, patients may reconsider the convenience of e-therapy to be more normal and acceptable. Thus, future studies may show the evolving nature of E-Therapy.

E-Therapy might be more conducive to group therapies and treating patients at remote locations where face-to-face therapy is unavailable. This would require the development of a different financial model to support application and use of e-therapy in rural areas and other locations where disenfranchised potential patients are not currently served. Online Mental Health treatment, despite legal and ethical barriers, might be perceived as better than no treatment at all.

V. CONCLUSIONS AND CONTRIBUTION

One contribution of this study reflects the difficulty in implementing technology perceived to be beneficial but just isn't catching on. IS researchers readily understand technological issues affecting implementation, but, in our eagerness to promote technological change, we may underestimate human factors that raise barriers to new approaches. As a result, adoption of new technologies to mainstream therapy by early adopters can be perceived as insurmountable to even the most optimistic and motivated to persevere in the face of entrenched orthodoxy. E-therapists work in a very people orientated, one-on-one environment and are trained within that environment to build close and very trusting relationships. The Media Richness literature has long suggested that online communication is less rich than face-to face communication (Daft & Lengel, 1986). It may be that E-Therapy is best used in secondary/supporting roles and should be presented in that context, rather than being presented as an important new tool every therapist should be using. The difficulty in finding expert participants for our study may suggest our lack of understating of the true nature of therapy and the limitations of technology in this particular context as opposed to our perception of therapists not appreciating the benefits of e-therapy.

This study sought identifies the critical success factors for online therapies. Even though online therapies have been technologically possible since the early 1990's, their full potential has not been realized. The reason is a combination of many factors. Online therapies are not generally reimbursed by insurance companies. Patients are reticent to pay the full price of e-therapy services unless there is copay. If patients spend the same amount of time online with a therapist as they would in an office, there is little financial incentive to be treated online. At the same time, practicing across state bounds raises legal issues such as licensing and the issuing of certifications. The obvious convenience of E-Therapy holds much promise but only if patients perceive the value and are willing to avail themselves of the benefits and a therapist is willing to work with a patient remotely. Clearer guidelines and laws are needed to reassure therapists and support reimbursement models for the types of patients who would benefit the most of these types of services. Metropolitan areas that transcend state borders may benefit the most from forward thinking E-Therapy processes since needed technologies are already in place and the needed impetus from patients and therapists exists in a natural setting to challenge the status quo. Ultimately, the patient will determine whether or not E-Therapy succeeds or fails.

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Editor's Note: The following reference list contains hyperlinks to World Wide Web pages. Readers who have the ability to access the Web directly from their word processor or are reading the paper on the Web, can gain direct access to these linked references. Readers are warned, however, that:

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