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**The Use of Technology Assisted Methods in Therapy: Clinical Social
Workers' Perspectives**

by

Lilyanna B. Anderson, B.A.

MSW Clinical Research Paper

**Presented to the faculty of the
School of Social Work
St. Catherine University and the University of St. Thomas
St. Paul, Minnesota
In Partial Fulfillment of the Requirements for the Degree of
Master of Social Work**

**Committee Members
Sarah M. Ferguson, MA, MSW, Ph.D. (Chair)
Franki Rezek, MSSW, LICSW, LADC
Rhonda Martin, LICSW**

The clinical research project is a graduate requirement for MSW Students at St. Catherine University/University of St. Thomas School of Social Work in St. Paul, Minnesota and is conducted in a nine month time frame to demonstrate facility with basic social research methods. Students must independently conceptualize a research problem, formulate a research design that is approved by a research committee and the university Institutional Review Board, implement the project and publicly present the findings of the study. This project is neither a Master's thesis nor a dissertation.

Abstract

Technology Assisted Therapy can be considered any form of therapy that uses technology as a mediating force. This could include things such as videoconferencing or Skype, online support groups, text messaging or other media devices. As technology becomes more and more influential in our society, it only makes sense that it would seep into the clinical social work setting and the therapy setting. There is little current research on this topic that focuses on what clinicians think about this developing trend. This study set out to determine clinical social workers' perspectives on the use of technology assisted methods in therapy. A survey was sent to practicing clinical social workers in the state of Minnesota asking questions about their experience with technology assisted methods, positives and negatives of these methods, their willingness to use these methods in their own practice and whether they believed these methods might affect the role of stigma surrounding mental health treatment seeking. The findings showed a great deal of ambivalence and uncertainty about this topic. Findings were also consistent with the research, citing concerns about the therapeutic relationship and pointing out the benefits of wider accessibility. It is clear that more research is needed on this topic. The field of social work has considerable growth to accomplish in this area.

Keywords: technology, telehealth, telemedicine, telemental health, telepsychiatry.

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The Use of Technology Assisted Methods in Therapy: Clinical Social Workers'
Perspectives

Technology has become an integral part of our society today. We use it for everything from banking to socialization and entertainment. Younger and younger children are getting cell phones. Children are better at using an iPad than many adults. Texting, instant messaging and the use of Face Time have taken over a telephone call or a face to face conversation. This new technology brings new challenges and new practices. Most social workers are required to carry a cell phone, use encrypted email, and do the majority of their paperwork in an electronic format. Social workers also use various online resources. It is also important, as social workers, to keep up with the technology, so that it can be used to the social worker's advantage to better serve our clients.

According the Pew Research Internet Project, technology fact sheet (2014), 90% of American adults have a cell phone, 58% of those have a smartphone, 32% own an e-reader, and 42% own a tablet computer. This increased use of technology has both positive and negative implications. On one hand, the increased use of technology may be isolating, discourage social interaction, hinder the development of meaningful relationships and encourage an inactive life style. On the other hand, people now have access to a vast database of knowledge and resources available at their fingertips.

As it applies to clinical social work practice, social workers and their clients now have a plethora of information available to them about mental health and mental health diagnoses. Social workers have new ways to engage with and reach out to clients, and new methods to work with the community. There are online groups and forums dedicated to support. Organizations such as the National Association of Mental Illness

(NAMI) use social media to promote their cause of bettering the lives of people with mental illness. NAMI's Facebook page alone has over 124,000 "Likes". People also have access to a wide range of resources and many different ways of reaching out for help. Along with greater access to information, the development of new technologies might create greater access to mental health services. Individuals who are struggling with mental health symptoms or who might otherwise have avoided the mental health system may access services because they can do it from the relative privacy of their computer, through a text message, or from their iPad. The use of technology in therapeutic settings would allow clinical social workers to reach out to underserved populations and to populations that have a low rate of follow through with treatment.

About one quarter of the American population has experienced some sort of mental illness, but only 25% of these people actually seek treatment (Vogel, Bitman, Hammer & Wade, 2013). A primary reason for these numbers is the fear of stigma that is associated with mental illness (Vogel, Bitman, Hammer & Wade, 2013, & Lannin, Guyll, Vogel, & Madon, 2013). Some specific groups such as children and adolescents, military service members, and veterans, and people living in remote or rural areas have an even lower rate of mental health treatment. Is it possible that all of this new technology could be used to help these groups of undertreated people (Tuerk, Yoder, Ruggiero, Gros & Acierno., 2010 & Ellington & McGuinness, 2011)? It should be noted that there has been an increase in focus within the research community on the use of technology in the therapeutic settings; the findings are promising (Niles, Klunk-Gillis, Ryngala, Silberbogen & Paysnick, 2012). These new techniques may assist the social work

profession best to serve as many people as possible, and to also support groups that have been traditionally underserved.

This study will look at clinical social workers perspectives on the use of technology assisted therapy.

Literature Review

To provide background information to the discussion of what are clinical social workers perspectives on the use of technology in therapy, it is important to look at both how technology is being used in therapy and some of the major reasons that this technology may be helpful. Because stigma is a large factor for many in declining to seek mental health treatment, it is important to look at this issue on its own, then focus on how technology may be able to help. This literature review will first look at the therapeutic relationship as it applies to technology. Second, it will examine stigma. Special attention will be given to the male population considering the volume of findings available. This review will then introduce what technology assisted therapy is, discuss promising findings in the current literature, indicate populations for which it can be useful, and review some of the limitations associated with this technology.

Therapeutic Alliance and the Use of Technology

The therapeutic alliance is the central point of the therapeutic relationship and has long been considered to be a crucial factor in treatment outcomes (Rawson & Maidment, 2011). It has been defined as “the extent to which a client and a therapist work collaboratively and purposefully and connect emotionally” (Rawson & Maidment, 2011. p. 14). If the therapeutic alliance is healthy and strong, there is a better chance of positive treatment outcomes for the clients. As it relates to technology, some clinicians believe

that the use of technology in place of face to face interactions could hinder the development of this therapeutic alliance (Wrzesien et al., 2013 & Rawson & Maidment, 2011). The largest concern here is that the therapist and client may miss out on vital nonverbal and visual clues (Wrzesien et al., 2013 & Rawson & Maidment, 2011).

Although the concern around this seems clear to clinicians, the little research that has been done on this topic is hopeful. One study done by Wrzesien et al. (2013) set out to evaluate the formation of the therapeutic alliance during exposure therapy sessions in a face to face intervention versus in a technology mediated intervention (Rawson & Maidment (2011). These results showed that the relationships formed were the same across both methods (Rawson & Maidment (2011). Other researchers have found similar positive findings that discuss that although the relationship is different, people can adapt and learn to work together in a different way using a “text based” format and things such as emoticons to develop their own language (Wrzesien et al., 2013). More research in this area is still needed

Stigma

Stigma is identified as a barrier to people seeking and continuing mental health treatment (Vogel, Bitman, Hammer & Wade, 2013). Multiple studies have related the fear of stigma to avoidance of seeking treatment (Lannin, Gyll, Vogel, & Madon, 2013, & Papadopoulos, Foster & Caldwell, 2013). Some studies have also posited that the feeling of stigma or being stigmatized may be even more damaging and the effects longer lasting than the mental illness itself (Papadopoulos, Foster & Caldwell, 2013; Gould, Greenberg & Hetherington, 2007). According to Papadopoulos, Foster and Caldwell (2013), mental health service recipients identified stigma as a large factor in suicide attempts.

People fear being perceived as weak, being treated differently, and being judged by others (Gould, Greenberg & Hetherington, 2007). Because of this fear, people are not seeking help for mental health issues. This causes them to experience a lower quality of life and less satisfaction.

Britt, Greene-Shortridge and Castro (2007) have defined stigma as: "...a negative and erroneous attitude about a person; it is a prejudice or a negative stereotype" (p. 157). To simplify this, stigma is a negative attitude that society holds towards people with a mental health diagnosis. Two aspects of stigma have been described in the research; public stigma and self-stigma. Public stigma is the attitude held by the general population towards people with mental illness or those who seek treatment for a mental illness (Vogel, Bitman, Hammer & Wade, 2013). Self-stigma is the internalization of those attitudes held by society and the application of them to oneself (Vogel, Bitman, Hammer & Wade, 2013, & Lannin, Gyll, Vogel, & Madon, 2013). A person, who is experiencing self-stigma, has absorbed the cultural ideas that people with mental illness are "different," "weak," or "unstable," and now views themselves as all of those things. This is concerning because people are then less likely to seek treatment or to continue treatment (Lannin, Gyll, Vogel, & Madon, 2013).

Men and Stigma. The term masculinity in American culture is deeply tied to the ideas of independence, control and self-sufficiency (Fox & Pease, 2012). Men in this culture are expected to be the provider and protector; they cannot appear to be weak or vulnerable and because of this attitude, they are particularly susceptible to the effects of mental health stigma (Fox & Pease, 2012). The idea "...that only the weaker..." (Currey, 2007)" will succumb to psychological stress has kept many men from seeking the help

they need to heal themselves. Much of the research in this area has focused on men within the military culture.

A study done by Peter W. Turek and colleagues (2010) found that 60-75% of veterans with mental health disorders from Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) do not seek help (Tuerk, Yoder, Ruggiero, Gros & Acierno. (2010). Another study states that current evidence is showing that veterans of OEF and OIF are less likely to seek treatment for PTSD are more difficult to engage in treatment, and also have a higher treatment dropout rate (Niles, Klunk-Gillis, Ryngala, Silberbogen & Paysnick, 2012). These studies indicate that this population is at a disadvantage for receiving the mental health assistance that they need. Because of this disadvantage, many have suggested that unconventional means of service delivery should be explored to aid this population (Tuerk, Yoder, Ruggiero, Gros & Acierno., 2010, & Niles, Klunk-Gillis, Ryngala, Silberbogen & Paysnick, 2012).

Technology Assisted Therapy

Technology Assisted Therapy is described by many names. Telehealth (Niles, Klunk-Gillis, Ryngala, Silberbogen & Paysnick, 2012), telemedicine (Luepker, 2012), telepsychiatry (Ellington & McGuinness, 2011), and telemental health are some of the most common terms used, but there does not seem to be a single agreed upon term within the field. This lack of a concrete term and definition made it difficult to determine which term to use for this study. For the purposes of this literature review and research, these terms will be considered interchangeable. The researcher will be using the term Technology Assisted Therapy. Technology assisted methods, according to Daniel F. Gross and his colleagues (2011), involve “using telecommunication technology to

provide assessment and treatment to patients” (Gros, Yoder, Tuerk, Lozano & Acierno, 2011 p. 276).” This could be by means of the telephone, video chat, video conference or Skype, or even via instant messaging or text messaging. It could also include things such as virtual reality technology. For example, a new method of treatment for schizophrenia employs the use of a computer animated counselor to mimic face to face communication (Puskar, 2011). Ellington & McGuinness (2011) define it as “...the use of interactive televideo communication to support or deliver psychiatric care at a distance” (p.20).

Although Technology Assisted Therapies are developing into their own distinct category, the underlying therapy practices used are similar to those in the traditional interventions. One study has applied the Cognitive Processing Therapy (CPT), which is a type of CBT, to a group via video teleconferencing (Moreland, Hynes, Mackintosh, Resick & Chard, 2011). Another study uses telephone sessions to compare psychoeducation and mindfulness techniques (Niles et al., 2012). Two others use the very effective exposure therapy given through video conference at community based outpatient clinics (Gros, Yoder, Tuerk, Lozano & Acierno, 2011) & (Tuerk, Yoder, Ruggiero, Gros & Acierno, 2010). Although the delivery method is new, the therapies used have all been tested and are evidence based.

Recent findings. Technology Assisted Therapy research still somewhat limited, but there are recent findings that suggest this area deserves further study. Studies are showing that when clinicians use technology assisted methods, the dropout rate of participants decreases. In a study completed by Moreland and colleagues (2011), it was found that “Treatment dropout (15%) was lower than the 20-35% often reported in clinical trials with veterans or PTSD patients” Moreland et al., 2011. p.468). Another

study found that "...over 80% of the participants completed the 8 week intervention and over 70% completed the follow-up assessment" (Niles et al., 2012. p. 544). These percentages are considered a good completion rate when working with veterans with a PTSD diagnosis.

Studies are showing that patients are satisfied when using this method. In a pilot study done by Turek and colleagues (2010), there was a very high acceptance rate of the Technology Assisted method. This suggests that "some aspects of telehealth services may be especially well suited and attractive to veterans with PTSD" (Tuerk, Yoder, Ruggiero, Gros & Acierno., 2010. p. 120). In another study, it was also found that telehealth methods were associated with high satisfaction rates in the treatment of veteran with PTSD" (Niles et al., 2012. p.544). Due to the high satisfaction rate with this population, it could be generalized that it would be accepted by other populations as well. These findings indicate that this method may prove to be very successful with this problematic population.

Lastly, these initial studies are showing promising findings that improvement in symptoms is consistent between technology assisted methods and traditional face to face methods. In a preliminary exploration study done by Gros and Colleagues (2011) that compared exposure therapy given through video conference and therapy given in person, "The findings suggested that, exposure therapy delivered via telehealth was effective in reducing the symptoms of PTSD..." (Gros et al., 2011. p. 281). A second study found similar results. Turek and colleagues (2010) found that exposure therapy given through technology assisted means was associated with an improvement of symptoms for

veterans diagnosed with combat related PTSD (Turek et al., 2010). More research is still needed to further assess this area; currently there are few studies looking at this question.

Strengths. Along with the many recent findings, technology assisted therapy has two other major strengths. First, through the use of this technology, it may be possible to bypass some of the stigma associated with a mental health diagnosis (Niles et al., 2012). Because people want to avoid the stigma of a mental health diagnosis, they avoid going out to seek treatment for the fear of being seen. If technology assisted therapy was more widely available, potential clients could seek help from the safety and comfort of their own home. Second, technology assisted therapy has been shown to be more cost effective for both the clinician and the client (Tuerk, Yoder, Ruggiero, Gros & Acierno., 2010, & Gros et al., 2011). The clinician is able to increase the area of service provision and the client is able to save on transportation cost, travel time and missed work (Gros et al., 2011). Lastly, Technology Assisted Therapy can reach out to some client groups that may be especially undertreated.

Populations. Technology assisted therapy has been shown to be especially helpful for some specific populations. Much of the current research in this area focuses on its use with military service members or veterans, due to the difficulty of engaging and treating this population. It has also been noted to be useful in rural areas and (Wynn & Sherrod, 2012) and with the adolescent population (Ellington & McGuinness, 2011).

As previously discussed, men, especially those within the military culture, are notorious for difficulty in seeking mental health treatment. Skopp and colleagues (2012), found that “only 23% to 40% of service members (military) diagnosed with psychiatric disorders sought treatment” (p. 1036), (Brandon, Christensen, and Yaffe, 2012). It has

also been noted that veterans, especially those returning from the more recent conflicts, have an extremely high rate of treatment dropout (Niles, Klunk-Gillis, Ryingala, Silberbogen & Paysnick, 2012). Due to these challenging circumstances, the Veterans Administration (VA) has focused their energy on developing more innovative ways to approach this population. Technology assisted methods have proven to be very encouraging.

Of the approximately 15 million U.S. children with mental health issues, only 36% of them receive mental health services (Ellington & McGuinness, 2011). This has largely been blamed on a shortage of qualified persons to work with this age group. The use of technology has been considered as a method to remedy this problem. Because most youth are already attached to their various technological devices, it was predicted that incorporating these into their treatment would be highly successful (Ellington & McGuinness, 2011. p. 20). Ellington and McGuinness (2011) found that adolescents had a very high approval rating of this method of therapy. “Adolescents reported that using technology was the ‘best part’ of the process and reported technology to be ‘cool’. Some reported feeling less anxious during a televideo session because they were not in the same room as the provider” (Ellington & McGuinness, 2011. p. 20).

Another current technology trend with this adolescent age group is using text messages to provide suicide counseling. According to the TXT4LIFE website, TXT4LIFE was a trial service developed by Carlton County Public Health and Human Services. Researchers and practitioners recognized that more teens were using text messages as their regular form of communication and used this trend to create a suicide help line that more teens might use. They are currently receiving over 400 texts a month;

the approval rating appears to be high. This is a text quote from someone thanking TXT4LIFE for their services: "Okay thank you. I think this is a really good idea because a lot of people aren't comfortable talking on the phone even if it is anonymous. Thank you so much for doing what you do <3" (4/18/2013) (TXT4LIFE website). Because technology is already so entwined in children's' lives, it only makes sense to incorporate it into therapy techniques. Thus far, it appears to be successful.

According to Wynn and Sherrod (2012) many Americans living in rural communities have limited access to mental health services. This is due to a lack of facilities within a reasonable travel distance and also the lack of motivation to travel to receive treatment. Due to this isolation, many people living in rural areas may not be treated for their mental health concerns. The VA is attempting to solve this problem through the use of technology in their mobile clinics. They are expanding and researching the use of Clinical Video Telehealth (CVT). These are small clinics staffed only by nurses and support staff that use video conferencing to communication with specialty providers from larger clinics. This method of therapy has proven to improve symptoms and cut down on travel time and cost for the clients (Wynn & Sherrod, 2012).

Limitations. As can be seen, technology assisted therapies have many strengths such as increased convenience, privacy, bypassing the stigma around mental health treatment and a lower cost (Niles et al., 2012). They also address the needs of some underserved populations such as children, military and people in rural communities. These methods do, however, pose some challenges.

Researchers have suggested that building rapport may be more difficult, as the client and therapist are at a higher risk of being distracted. Additionally, safety and

ethical issues may become a problem (Niles et al., 2012). In an article written by Ackerman, Pyne and Fortney (2009), the authors discuss some of the challenges with being an off-site Depression Care Manager (DCM). DCMs use only the telephone to complete depression symptom assessments, and thus have a very unique set of problems to deal with. This article notes that there are challenges associated with assessing for suicidality, such as “maintaining boundaries, building trust and learning to read between the lines” (Ackerman, Pyne & Fortney, 2009. p. 43).

These limitations all stem from the challenges of forming a solid and trusting relationship between the client and the clinician. When using this method of therapy, the clinician is removed from the client. There may be a loss of visual cues and nonverbal signals. It may become more difficult to gauge a client’s mood and affect (Luepker, 2012). Because these limitations involve the client and the clinician, it seems vital to gain their perspectives on this matter.

To conclude, technology use in the therapy setting is a relatively young idea. Though it is still being developed and researched, it will most likely be a part of the mental health field in the future. The use of technology has demonstrated some positives, such as increasing accessibility to clients and addressing the needs of people to have barriers to receiving services. There are also numerous concerns surrounding its use, especially regarding the therapeutic relationship. Ultimately, opinions of clinicians and clients are those that matter. Based on the literature available, it appears that there is little documentation on how either of these groups feels about this developing means of therapy. Due to this lack of information, this research study intends to gather information

from one of those groups. The purpose of this study is to obtain clinical social workers' perspectives on the use of technology assisted therapy

Methods

Research Design

This study set out to determine clinical social workers' perspectives on the use of Technology Assisted Therapy. This was a qualitative study, using data gathered through a cross sectional survey of clinical social workers. The clinical social workers were recruited through a survey invite via email (Appendix A). These email addresses were purchased through the Board of Social Work. The data was then compiled and analyzed and coded looking for specific themes that related to attitudes about technology assisted therapy.

Sample

The sample in this study was an uncontrolled, mixed sample. It consisted of a total of 19 respondents. One respondent was male, 16 were female and two declined to answer this question. The ages of the respondents ranged from 25 to 74 with the average age of 39 and a median age of 33. Two respondents declined to answer this question. These responses were not included in the average or median. The years of practice experience varied widely from slightly less than two years, up to 48 years. Respondents were given the options of urban, suburban and rural for the location of their practice. Most people responded urban (8) and suburban (7). Two people responded rural and two people declined to answer.

The sample consisted of professionals with either a License in Graduate Social Work (LGSW) or a License in Independent Clinical Social Work (LICSW). This was to

ensure that the participants had at least some clinical experience. Participants were accessed by purchasing an email list from the Board of Social Work and a survey invite was sent via email (appendix A). This survey was completely voluntary and all participants were anonymous.

Protection of Human Subjects

This was an anonymous and low risk study. The respondent's names were not attached to their survey response in any way. No identifying information was requested. Respondents could choose to answer only some questions, and could elect not participate in the survey at all. Because this was an online survey, implied consent was used. Respondents checked a box at the beginning of the survey to demonstrate that they consented to participate. Prior to beginning this study, the researcher gained approval from the St. Catherine University Institutional Review Board.

Data Collection

The data for this study was collected using an online survey created by the researcher. An email survey invite was sent out to 200 people via a third party survey creation company called Qualtrics. Participation was completely voluntary; this program kept all responses anonymous. It took respondents anywhere from 3 to 37 minutes to complete.

The survey consisted of 15 questions. The majority of questions were open ended. It began with a yes or no question designed to gain consent from the respondent. Respondents were only allowed to proceed with the survey if they answered yes to this question. The survey then moved into questions designed to assess how familiar the clinicians are with the use of telemedicine (Q2 & Q3), whether they have or would be

willing to use it in practice(Q4 & Q9), their thoughts and feelings about it(Q6), the positives (Q7) and negatives (Q8) they see in its use, and if they feel that this method would be helpful in addressing mental health stigma (Q10), and whether they have worked with the veteran population (Q5). Most of these questions were open ended and allowed the respondents to say whatever they wanted. The end of the survey also asked 5 questions to gather demographic information such as age (Q12), gender (Q13), years of practice experience (Q14) and location of practice such as suburban, urban or rural (Q15). There was also an open space left for any other comments (Q11).

Data Analysis

This study was a qualitative study that set out to determine the perspectives of clinical social workers' on the use of technology assisted therapy. The data gathered from the survey was compiled and a content analysis was used to identify themes and gather information. The data was broken down into several sections, and analyzed and coded separately. These sections consist of clinician's familiarity with the use of technology in therapy (Q2-Q4), general thoughts on the topic of technology in therapy (Q6), positive aspects of technology in therapy (Q7), negative aspects of technology in therapy (Q8), clinician's willingness to use technology in therapy (Q9), and the perceived effects of technology assisted therapy on stigma (Q10). The researcher compiled all of the respondents' answers and grouped them together by question. Each question was coded once; the researcher looked for various minor themes. These themes were then condensed and coded a second time into broader themes that will be outlined in the findings.

Findings

This section will detail the findings of the survey that set out to gather clinicians' perspectives on the use of technology in therapy. First it will briefly cover some information about the group of respondents and it will then move on to discuss the major topics of: clinicians familiarity with the use of technology in therapy, general thoughts on the topic of technology in therapy, positive aspects of technology in therapy, negative aspects of technology in therapy, clinicians' willingness to use technology in therapy and the perceived effects of technology assisted therapy on stigma.

Respondents

This survey was sent out to 200 people from a mailing list acquired from the Board of Social Work. The survey was open for about 5 weeks and 19 people responded. Of these 19 respondents, all but one were female. Their ages, years of practice and location of practice all varied. Respondents were also asked if they had any experience working with the military population due to the researcher's interest in this group. Few respondents answered yes to this question and no useful data was gathered from it, so it has not been included in the findings.

Familiarity with technology use in therapy

Most participants in this survey had at least some familiarity of the use of technology in therapy. 17 out of the 20 respondents answered yes to the question: *had you heard of Telemedicine/Telehealth/technology assisted therapy before this survey?* Respondents who answered yes to this question were then asked to identify how familiar they were. When coded, the researcher grouped responses into three categories: familiar, somewhat familiar, and not very familiar. Anyone who had either used the method in

practice or indicated they were “*familiar*”, “*fairly [familiar]*” or had “*working knowledge*” were grouped on the familiar category. Five out of 17 were categorized as being familiar with technology assisted methods. Six respondents were grouped in the somewhat familiar category and six were grouped in the not very familiar category.

Only 4 out of the 17 respondents who had heard of technology assisted methods reported actually using them in their practice. These respondents talked about participating in telephone sessions, using text messaging, Skype (internet video chatting), fitbit (device that measures physical activity) and homestead (unclear what respondent was referring to). One respondent discussed their agency using ITV (Internet Television) although they had not used it themselves. A total of 13 out of 17 respondents indicated that they had not used these methods in their practice.

General Thoughts

In question 6 of the survey, respondents were asked: *What are your general thoughts and feelings surrounding the use of technology in a therapeutic setting?* Upon reviewing clinicians overall thoughts on the use of technology in therapy, it became clear that there was a lot of variation in the respondents answers. When looking at the general tone of the responses, it made sense to group them into three categories; overall positive answers, overall negative answers and ambivalent answers. Many clinicians with an overall positive view saw the use of technology in therapy as innovative and progressive. People also commented on the various populations that this form of therapy could reach such as people in rural settings, veterans and people with agoraphobia.

The clinicians who fell in the ambivalent group pointed out that it has both limitations and benefits and that it is highly dependent on the client and the situation.

Multiple respondents felt that technology could be very positive when used to assist therapy or supplement therapy, but that face to face interaction should not be replaced. Some suggested that initial assessments and relationship building should occur in person and after that sessions could move to a different format. Some respondents also felt that technology could be used as a last resort and pointed out that that would be better than no therapeutic intervention at all.

Clinicians who fell in the overall negative group voiced more concerns than positive. Many of these respondents commented on the inability to form a good relationship through technology, and indicated that technology would just get in the way. Others were more frank in stating that they would not want to use it at all such as this writer: *I would not be interested in this. I prefer face to face relationships.* As evident by the wide range of answers to this question, there is still a lot of uncertainty about this topic. Some clinicians hold very strong views on one side or the other, but the majority of clinicians surveyed still feel some amount of ambivalence.

Positives aspects of technology in therapy

In question 7 of the survey, respondents were asked: *What do you see as some positive aspects of technology assisted therapy?* From this question and from data included in the preceding question about general thoughts and feeling towards technology in therapy, three common themes seemed to emerge. These themes were: ease of access, ability to reach underserved or specific populations and cost. Most of these responses centered on positives for the clients, but there was also some mention of positives for the clinicians as well.

Ease of access. This theme included aspects such as convenience, flexibility, and lack of transportation barriers. Many respondents pointed out the use of technology would allow for more flexibility, efficiency and convenience for services, thus making it more likely that client would receive services. One respondent had an example:

It creates an easily accessible outlet. For instance, our hospital utilizes video-conferencing for Mental Health/Chemical Dependency assessments for individuals in the ED. This technology is time-effective has it is available instantly and still allows the patient to have a face-to-face encounter with the professional.

Another aspect that was brought up multiple times in relation to ease of access was the issue of transportation. It was noted by some that transportation can often be difficult or not available to many clients, and that the use of technology could solve some of these problems. One person said: *It breaks down some of the barriers that may prevent clients from receiving care, such as isolation, transportation, and perhaps even limited resources in a client's region.*

Ability to reach other populations. Many respondents also discussed how technology may increase access to some populations who are generally underserved or otherwise have barriers to seeking mental health services. One of the groups mentioned most frequently was people living in rural areas where access to mental health professionals is extremely limited. Several respondents included something about technology being used to reach rural populations in their answers. One stated that a positive aspect of technology is that it allows for *new ways to reach and connect isolated or rural individuals.*

Another population that clinicians claim to benefit from the use of technology in therapy is teenagers. For example, one clinician writes: *I work with young people and most times they feel comfortable texting instead of talking on the phone or face to face.* Another clinician writes that a positive of using technology is that she is *able to work with the younger population who communicate more through technology.*

A few clinicians also mentioned that the use of technology may allow people who are housebound, agoraphobic and those who may not otherwise be comfortable seeking help in the community, to receive services from the comfort of their own home. One respondent also mentioned that this method can be especially useful with veterans: *I think that they [technology assisted methods] are very helpful, are often well received by our veteran population, especially the younger ones.*

Cost. Cost was identified by some respondents as a positive aspect, but it was not as frequently noted as the other two themes. One respondent wrote: *[technology assisted therapy is] able to reach greater number of people at low cost and low inconvenience.* Other respondents merely included “cost” in their list of positive aspects.

Therapist benefits. Only a few respondents mentioned benefits of technology assisted therapy specifically for the clinicians. One respondent stated: *From a clinician's standpoint, it can reduce the amount of travel and risk of burnout, due to the ease at which clients can be reached.* A second respondent also mentioned that there is less need for travel and more efficiency. Two others stated that it is a convenient way to reschedule and communicate: *Texting is often a quick and easy way to communicate vs. leaving several voice mails and waiting for a response.*

Negative aspects of technology in therapy

In question 8 respondents were asked: *What do you see as some negative aspects of technology assisted therapy?* From this question and from data included in the preceding question about general thoughts and feelings towards technology in therapy, four themes emerged. These themes were: relationship concerns, communication issues, ethical concerns and technology issues. Of all of these themes, relationship concerns were the most common, followed by communication issues.

Relationship concerns. Many clinicians expressed concerns about the ability to form a strong therapeutic relationship using technology. One clinician sums it up nicely and says:

I believe there is something to be said about being physically present with a client and what that does for the therapeutic relationship and rapport. This face-to-face time could be more limited with the use of technology-assisted services.

Respondents used words such as impersonal, distanced and anonymous. Many people also talked about having difficulty building rapport with clients without that face to face contact.

It was also mentioned that relational issues are often central to what the client is working on in therapy; tackling these issues could be difficult via technology.

Often clients are working on communication skills, developing personal relationships, and learning how to address conflict/discomfort. Due to so much technology, especially among adolescents and young adults, limit their experience with interpersonal skills.

This theme seemed to be very prominent and very important to many of the clinicians.

12 out of the 19 responses included content about the relationship between the client and therapist.

Communication issues. Communication issues were another very common concern among the respondents. Some people discussed that it may be more common to experience miscommunication while using technology. Others stated that using technology may cause clinicians to miss out on nonverbal information and body language that can be useful in reading the client. One respondent writes:

When it is used without a thorough going in person initial assessment I think it omits important information that can only be gained in person. Furthermore, I think it encourages impressions to be made based primarily on voice and or image.

A final communication concern that was brought up was that people may be easily distracted by things such as children, pets, or household tasks if they are in their own home. These communication issues were fairly common among the respondents. They were present in 7 out of 19 responses.

Ethical concerns. Several respondents brought up the issue of ethics surrounding the use of technology in the therapeutic setting. The most common concern was around issues of confidentiality and security when using technology such as texting and Skype. Another concern was that the use of technology may blur the boundaries between client and therapist. Respondents voiced concern that clients may think they can access the therapist at all hours of the day through things such as Skype, texting and email. Lastly,

multiple respondents simply stated that there were general ethical concerns, but they did not elaborate on what these may be.

Technology issues. Various concerns about the technology itself came up in the responses. One concern was that people or clinicians may not have access to the technology necessary to participate in these types of interventions. The subject of cost arose as an example of a barrier for both clients and clinicians. These techniques may require special technology which can be costly and is also easily out dated. One consideration was whether clinicians or clinics would be fielding extra expenses for IT support. Another concern was whether clients may feel uncomfortable or dislike using technology in this manner. A few clinicians pointed out that it would be necessary to assess the client's ability to use the technology and make sure that they were aware of the risks involved. A final concern with the technology was that clients may become dependent on it. One respondent wrote: *It could contribute to our growing dependency on social media outlets instead of developing deep authentic inter-relationships.*

Other concerns. Based on data gathered throughout the survey, several additional concerns were discussed. Multiple clinicians discussed the issue of insurance and whether these types of interventions would be considered billable. Another clinician brought up the fact that more training on these methods will be necessary before clinicians jump right into doing. Clinicians also indicated concern around the idea that more research is needed. The ongoing theme observed by this researcher is that many unknowns remain with regards to the use of technology in the therapy setting.

Clinicians' Willingness to use Technology in Practice

In question 9, respondents were asked: *Would you as a clinician be willing to use any type of technology if the opportunity presented itself?* The majority of people responded positively and said that they would be willing to at least try it. Some of the common positive statements made were: *Yes, if the clients were comfortable and their needs were being met* and *yes I am willing to try anything*. A few people seemed very interested in keeping up with the times and utilizing technology as it becomes available. One clinician stated:

I would try any new technology that came along as I believe strongly in making sure that folks have access to therapeutic intervention (I think perhaps it's because I'm a social worker!)

Although most respondents said they would be willing to try using technology, there were also those who were still on the fence. Some of these responses involved the need for more information or that the answer would depend on the type of client and type of interaction: Here, a clinician outlines when they may use it and when they may not:

perhaps, but with well-thought out caveats, like a good understanding of the individual's historical reactions to stressors, ie it would be difficult to do with some Axis II disorders, some forms of depression, and with someone experiencing paranoia or other interferences in their ability to perceive reality.

These responses reflect the middle ground answers of clinicians who have not yet decided on the soundness of these methods.

Only three of the total respondents presented as overwhelmingly unwilling to use technology in their practice. Two people simply sated “No” and the third person discussed the various concerns they had with these methods.

I would not use certain types due to confidentiality concerns, thinking e-mail in particular. Would also not use Skype or telephone or e-mail for treatment purposes. There is no substitute for in person contact without in some way dehumanizing the exchange.

Again, as in the negative aspects of technology in therapy section, the common themes of ethical concerns and relationship concerns are present in this clinician’s response.

Effect on stigma

In question 10, respondents were asked: *Do you think that the use of these technology assisted methods might improve treatment seeking for mental health issues due to the lessening of stigma? Please explain.* The intent of this question was to learn what clinicians thought the effect of the use of technology in therapy would be on stigma. It was pointed out that this was a somewhat leading question by one of the respondents, and upon further thought, it could have been worded differently. Despite this, the question yielded some very interesting information. From the responses, three distinct themes emerged.

The first theme was a positive relationship between technology and the lessening of stigma. Some responses reflected that, technology use may help to lessen the stigma around mental health treatment. People cited such reasons as the idea that clients may be more apt to participate in treatments, or that the easier access would encourage people to seek treatment. Others talked about the fact that people may feel more at ease in their

own homes, and may be more likely to disclose more information and ask more questions. One of the very positive respondents wrote:

Yes, I believe it can act as a great outlet for individuals who face that stigma. An example that comes to mind is the Second Life software that allows individuals to attend group therapy sessions in the form of a character online. It allows that freedom to choose what works best for your own comfort level.

The second theme present in this question was that of a negative relationship between the use of technology and stigma. This theme contained the idea that technology use itself may perpetuate the stigma. One respondent writes: *On the other hand, this may also increase the stigma as people may be less likely to talk about their need with help with family/friends if they can keep it hidden. (Potentially less opportunity for support/education).*

The third theme in this question was that people were unsure, needed more information, or thought that only time could tell. This was the most common theme for this question. Similar to many answers in this survey, these responses show that clinicians are still very uncertain about the full implications of the use of technology in therapy and how it may affect the mental health system. Many people responded with statements such as *I'm on the fence, I don't know, I am unsure* or *I do not have enough information at this time*. Many answers also contained both yes and no responses

Lastly, there was also respondent who felt that stigma was a larger separate problem that needed to be dealt with on its own and one respondent who pointed out that stigma could be internalized and that the use of technology really had no bearing on this experience.

Discussion

This research study set out to gather clinical social workers' perspectives on the use of technology assisted therapy through a survey sent via email. From these responses, the researcher gained a glimpse at some of the overall feelings surrounding this developing topic and also the willingness of current clinicians to use these methods in their own practice. The researcher has also begun to see some of the clinician's concerns and ambivalence surrounding this topic, and also their hopes and the perceived benefits of it. Lastly, this research has opened a door to the topic of stigma in our society and how technology may help or hinder this problem.

Overall Feeling

Based on the responses from this research, it is clear that the overall feeling surrounding the use of technology assisted therapy is that of uncertainty. Clinicians were hesitant and seemed ambivalent about many of the answers. As discussed in the literature review, this is still a new topic. Comparatively, there is little research on this subject. The responses here reflected that. Many people mentioned the need for more conversation, more research and more information. Others gave answers that were highly dependent on circumstances, clients and settings. The purpose of this general survey was to fill a gap in the research with regards to the clinicians' opinions. As noted, opinions are present, but they are still developing and forming. This is an area that will require continuous monitoring.

Willingness to embrace

Although there was a fair amount of uncertainty in clinicians' responses, it appears that a number of respondents were still open to the idea of using technology

assisted methods, or at least open trying them in their own practice. In reviewing the number of American adults using cellphones (90%) and those who own a tablet computer (42%) (Pew Research Internet project, [technology fact sheet], 2014), and as we examine how attached the children of today are to technology, it is obvious that these devices are here and are here to stay. It seems that the majority of clinicians surveyed understand this and are willing to “keep up with the times” if it means being able to better serve their clients and to reach more people.

Positive versus negative

One of the relevant pieces information gleaned from this study is the various opinions on the positives and negatives of the use of technology in therapy. Two main positive themes that appeared were: technology creates easier access for clients; and that technology may assist in reaching out to underserved populations.

The four main negative themes were relationship concerns, communication concerns, ethical issues and technology issues.

Positives. According to the thoughts of the clinicians surveyed, the main positive attributes of Technology Assisted Therapy were: easier access for clients, increased access to populations such as veterans, adolescents and people living in rural areas, and cost. Convenience also plays a major role in the likelihood that people will seek services; this was shown by the number of clinicians who mentioned it. This factor did not seem to be explicitly present in the literature, it was alluded to however.

The literature drew attention to three populations that could benefit a lot from the use of technology in therapy: veterans (Niles et al., 2012), adolescents (Ellington & McGuinness, 2011), and those living in rural areas (Wynn & Sherrod, 2012). It is

interesting to note that all three of these groups appeared in clinicians' responses. This is very consistent with the research. Veterans were represented much more heavily in the research than they were by the clinician sample; this is mostly due to the fact that the VA does a lot of research and that most of the clinicians in the sample did not work specifically with the veteran population.

While cost was cited as a major strength in the literature, it was only a minor theme in the clinician responses. Technology assisted methods have been shown to be more cost effective for both the clinician and the client (Turek, Yoder, Ruggiero, Gros & Acierno., 2010). They have been shown to reduce on travel time, cost and missed work (Gros et al., 2011). It is understandable that this theme did not arise in the survey; respondents would not know this unless they had used these methods or read about them.

Negatives. Many of the negatives that were brought up in the clinicians' responses were also mentioned in the literature. The main concerns seemed to center around the relationship and communication. Lupker (2012), talks about the difficulty of working with people when the clinician is lacking visual cues and nonverbal language. This is very similar to many comments made by the clinicians. Other articles discuss difficulty with building rapport and with distraction (Niles et al., 2012). Both of these were also present in the survey responses.

The other themes of ethics and technology barriers that were present in the responses did not seem to be represented very well in the literature. It would seem that there has been little research focus of ethical implications in academia, as these policies are still very new and can vary from agency to agency. This area merits ongoing examination. The clinicians also addressed concerns around technology including

limited access to technology, and limited knowledge about technology. These issues however, did not emerge in the review of the literature.

Stigma

In the research, one of the major strengths of technology assisted methods that was discussed was the possibility these methods may help to bypass some of the stigma associated with seeking mental health treatment (Niles et al., 2012). Because stigma is such an important issue in the mental health field and because of these findings, this researcher asked a question about stigma on the survey. Results were interesting and very mixed.

Clinicians appeared to be very hesitant to comment on this issue. Some clinicians did agree with the research stating that technology use may help to lessen the stigma of mental health treatment. Others did not, and many were unsure. One thing that emerged that was not present in the literature review was the concept that the use of technology could actually perpetuate stigma because it would allow people to “hide” their illness more easily. This interesting notion was present in more than one of the survey responses. This goes to show that more research is definitely still needed in this area.

Military

Much of the literature on this topic has been conducted regarding the use of Technology Assisted Therapy with the military population and within the Veteran’s Health Administration. This was an area of interest for the researcher. Thus, a question was asked regarding clinicians experience with the veteran population. Due to the lack of positive responses, no information was gathered from this question. One clinician did mention, however, that technology has been very popular with veterans in her practice,

especially younger individuals. This statement is consistent with the findings that report high levels of satisfaction with technology assisted methods for veterans (Tuerk, Yoder, Ruggiero, Gros & Acierno., 2010. & Niles et al., 2012).

Strengths and Limitations

This study had a number of both limitations and strengths. One of the most considerable limitations of this study was time. Due to time constraints, this study was only able to provide a brief look at clinicians' perspectives on this very interesting topic. Should there have been more time available to the researcher, it would have been beneficial to have either a more detailed survey, or to sit down and interview clinicians.

Another limitation was that the study includes both people who have had experience with the use of technology in therapy and those who have not. To further focus this research, it would be helpful to interview or survey only clinicians who have used some form of technology in their practice. These individuals may have had more insight into the positives and negatives of the use of technology than a clinician who has never used such techniques.

A final limitation was that the design of the survey; it was too open ended. If the research could be completed again, it would be helpful to require respondents to be more specific on their answers such as "Yes", "No" or "Unsure", and then to require an explanation. This would make it easier to attain more concrete data around clinicians' opinions on the question.

The primary strength of this study is that begins to fill a gap in the research on the topic of technology assisted therapy. It is important to understand how clinicians view this developing method; ultimately they will be the group utilizing it in practice. There is

little research that addresses the clinicians' opinions on its use; that is exactly what this study set out to examine.

A second strength is that this study will serve as a starting point for further research into this topic. The results from this study indicate many further directions that could be expanded upon to add to our knowledge base of this growing topic.

Implications for Practice and Policy

Use of technology is not going to disappear; it is likely that it will become more integrated into both personal and professional life. Consequently, it is important for clinicians to remain knowledgeable on the research surrounding this evolving topic. It is also important for clinicians to be aware of the various types of technology available, and how they may be used to better serve or assist their clients. It appears that this is still a new topic area for many clinicians. It will be important to continue discussion on this topic.

With these new practices and new technologies also come the need for new policies and trainings surrounding the issues they present. It will be important for agencies to develop policies surrounding the acceptable ways to use technology. Agencies will also need to develop mechanisms to handle ethical issues such as confidentiality and boundary concerns that arise as a result of the use of these technologies. Payers will also need to determine how to reimburse providers for technology based interventions.

Future Research

Based on this very limited glimpse into the use of Technology Assisted Therapy, it is evident that this is an area where a great deal of further research is needed, especially

clear, evidenced based research. In terms of future research that may be generated by this study, it would be very useful to look at the opinions and perspectives of clinicians who use it versus those that do not. It would also be interesting to review the role of age, or of the number of years in practice with regards to clinician's willingness to use these methods or view them as positive.

In terms of other directions for research, it would be very helpful to compare the effectiveness of various different types of technology in a therapy setting and/or various types of therapy using technology assisted methods. It would also be intriguing to focus on the perspectives of clients regarding the use of technology in the therapeutic setting, to hear their concerns, questions, and thoughts on the issue.

Lastly, as this field develops further, it would be beneficial to look at boundaries between professionals and clients and how they may shift and change as the use of technology and social media increases.

Conclusion

This study set out to look at the new and emerging trend of technology assisted therapy by getting the perspectives of practicing clinical social workers. This topic is still very new and its future is uncertain. This was evidenced in the ambivalent responses from clinicians. For the most part, clinicians seem open to the new ideas and positive about what this may mean for their clients. However, there is still a fair share of concern surrounding it as well. The idea behind this study was to open the discussion about this developing topic as it does not appear as though technology will be disappearing anytime soon. Technology has become an integral part of society. It is also becoming an integral part of the social work field.

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Appendix A

(Text from the survey invite email)

Hello,

My name is Lily and I am an MSW student at the University of St. Thomas/St. Catherine's University. As part of my final year as a graduate student, I am conducting a research study and I am requesting your help.

I am interested in gathering information on social work clinicians' perspectives on the use of technology assisted therapy. Technology assisted therapy, Telehealth or telemedicine is the use of some form of technology to provide therapeutic intervention. This could be things such as video conferencing or Skype, text messaging or instant messaging, regularly scheduled telephone therapy or other forms of virtual reality.

This is a brief survey and should only take you about 10-20 minutes to complete depending on the extent of your answers. I would greatly appreciate your help and your viewpoints on this topic.

If you should choose to participate in this study, please click on the link in this email and it will take you to the survey. Thank you!

***NOTE: If you do not do clinical work, thank you for your time, but please do not complete this survey. I am looking for participants who do or will be doing clinical work with clients. You may at this time disregard this survey invitation and delete this email. Thank you.

Follow this link to the Survey:

Appendix B

(Questions as they appeared in the Qualtrics survey)

Question 1/Informed consent

Thank you for taking the time to participate in this study!

This survey is completely voluntary and anonymous. You can chose to skip questions or not take the survey at all. If you chose to participate, it will take you about 10 to 20 minutes depending on the detail of your responses. By completing this survey and submitting it, you will be giving your implied consent for me to use your responses in my study. If you would like any further information on this research or are interested in the final results, you can contact me via email at ande7715@stthomas.edu. Thank you again for your participation! Do you consent to taking this survey?

(YES or NO)

Question 2

As a reminder, Telehealth, Telemedicine or technology assisted therapy for the purpose of this study, is the use of some form of technology to provide therapeutic intervention. This could be things such as video conferencing or Skype, text messaging or instant messaging, regularly scheduled telephone therapy or other forms of virtual reality.

Had you heard of Telemedicine/Telehealth/technology assisted therapy before this survey?

(YES or NO)

Question 3

How familiar are you with these methods?

Question 4

Have you used technology assisted methods in your practice? If so, what have you used?

Question 5

Have you worked with the veteran population?

Question 6

What are you general thoughts or feelings surrounding the use of technology in a therapeutic setting?

Question 7

What do you see as some positive aspects of technology assisted therapy?

Question 8

What do you see as some negative aspects of technology assisted therapy?

Question 9

Would you as a clinician be willing to use any type technology in your practice if the opportunity presented itself? Why or why not?

Question 10

Do you think that the use of these technology assisted methods might improve treatment seeking for mental health issues due to the lessening of stigma? Please explain.

Question 11

Other comments?

Question 12

What is your age?

Question 13

What is your gender?

Question 14

How many years of practice do you have?

Question 15

What best describes the location of your current practice?

(RURAL, SUBURBAN or URBAN)