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A Synthesis of E-therapy in Social Work: an Ecological Perspective

Caitlin Hurley
University of St. Thomas, Minnesota, clhurley@stthomas.edu

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A Synthesis of E-therapy in Social Work: an Ecological Perspective

Submitted by Caitlin L. Hurley

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MSW Clinical Research Paper

The Clinical Research Project is a graduation requirement for MSW students at St. Catherine University/University of St. Thomas School of Social Work in St. Paul, Minnesota and is conducted within 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 their findings. This project is neither a Master's thesis nor a dissertation

School of Social Work
St. Catherine University & University of St. Thomas
St. Paul, Minnesota

Committee Members:
Robin Whitebird, MSW, PhD, LISW (Chair)
Theresa McPartlin, LICSW
Lindsey Hagen

Abstract

The purpose of this research is to explore how empirical studies surrounding e-therapy may affect the social work profession from an ecological perspective. Technology has played an important role in expanding contemporary society's ability to connect to one another. Currently, there is a significant number of people who are in need of mental health services but do not have access for a variety of reasons such as lack of local resources, financial issues, or simply the stigma surrounding seeking mental health treatment. This review explores eleven quantitative research articles in an effort to determine who is being treated with online therapeutic interventions, why they are being treated, and the outcomes of selected studies. Findings suggest that many aspects of online mental health treatment are being explored at an international level across all mental health professions. Studies conducted in Europe (n=4) tend to focus on adults suffering from general psychological issues, to individuals experiencing chronic addictions. Articles from Australia or New Zealand (n=3) are oriented around addressing young people's (under 20) psychological concerns and perceptions of mental health treatment as a whole. Clinician's perspectives are also examined in the remaining articles (n=4). Online mental health services may provide another avenue for the implementation of successful therapeutic interventions. Future research should continue to explore the efficacy of CBT and psychotherapy delivered online, making a conscious effort to repeat Standardized Measurement Tools (SMT).

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A Synthesis of E-therapy in Social Work: an Ecological Perspective

Technology has played a substantial role in healthcare particularly in regard to service delivery. The concept of Telehealth and the subsequent Telehealth legislation ensured there was an opportunity to provide adequate healthcare services and communication over the Internet (Perle & Nierenberg, 2012). While there is no replacement for the face-to-face interaction of traditional psychotherapy, electronic therapy (e-therapy) is going to play an important role in the evolution of the social work profession (Menon & Rubin, 2001). There is a general lack of consistency regarding e-therapy in terms of definition and the amount of attention it garners across mental health fields. Many social workers may not know that the use of the telephone in practice is technically considered to be a mode of e-therapy even if it is commonly thought of as an administrative tool (Santhiveeran & Grant, 2005). There is little clinical research from a contextual social work perspective surrounding e-therapy and its potential impact on the profession as a whole.

The therapeutic relationship is often cited as one of most important components of providing successful psychotherapy (Cooper & Lesser, 2002, p. 33). Although the therapeutic relationship carries a significant amount of weight in the therapeutic process, external factors and circumstances of a client's life outside of therapy play an important role as well (Cooper & Lesser, 2002). The Internet, which offers an alternative space for relationships to develop, may provide another opportunity for clients to: become actively engaged in their mental health, establish and maintain a relationship with a mental health professional, or increase their investment in the therapeutic process and relationship outside of a traditional face-to-face therapeutic intervention.

The Internet has potential to reach many clients who may not otherwise have access to therapeutic interventions (Chester & Glass, 2006). It is imperative for clinical social work professionals to collectively acknowledge the potential for the Internet, specifically e-therapy, as another point of access to and for our clients. E-therapy is a relatively new form of online therapeutic intervention that includes, but is not limited to: the telephone, online forums like message boards, instant messaging, and regulated or "module-based" therapies like Cognitive Behavioral Therapy (CBT) or Dialectical Behavioral Therapy (DBT).

Considering 68% of the world has 3G coverage and by the end of 2015 there will be over 3.2 billion people online ("Internet used by," 2015), it is crucial for social work to acknowledge the importance of technological communication. E-therapy may offer another platform to facilitate human connection and strengthen therapeutic relationships across space and time. Research suggests that there is value in further exploration of e-therapy in order to develop a standard of practice (Abbott, Klein, & Ciechomski, 2008; Perle & Nierenberg, 2012; Wodarski & Frimpong, 2013)

Since clinically trained social workers constitute the majority of mental health professionals in the United States (National Association of Social Workers, n.d.). Yet according to Finn (2002) Masters of Social Work (MSW) students hold inaccurate beliefs and do not have enough education around the use of e-therapy to effectively incorporate it into their practice. Lack of knowledge allows an opportunity for social work to grow and increase its success in direct practice. E-therapy has the potential to impact many people who are suffering from a single psychological issue, or comorbid disorders (Kay-Lambkin et al., 2012). These individuals may not seek face-to-face therapy for a variety of reasons. While there are articles that discuss e-therapy, it's effects, benefits, and ethical considerations, there is a need to synthesize information

in an effort to fill the gap in knowledge from an ecological perspective adapted to social work's

micro, mezzo, and macro realms of service.

The focus of this systematic research review is to synthesize and explore the implicit and

explicit ways in e-therapy may be used in the social work profession from an ecological

framework. This research will review current empirical evidence surrounding e-therapy and the

ways in which e-therapy is used to treat individuals suffering from various psychological issues

and disorders from a micro, mezzo, and macro perspective. The method for conducting the

review and approach to how it will be synthesized is outlined in the methods section. Finally,

limitations of the study and suggestions for future research will be discussed.

Literature Review

Definition

E-therapy. To better understand this study, online therapeutic communication must be

defined. In the clinical social work world e-therapy revolves around delivering treatment to a

client through "electronic messaging" which includes: traditional e-mail, cellular phone text

messaging, instant messaging through a computer or tablet, a chat room or discussion board with

a consistent therapeutic group (Abbott, Klein, & Ciechomski, 2008). E-therapy may also include

simulations of traditional face-to-face counseling by incorporating real time interactions through

videoconferencing platforms, like Skype, or talking on the telephone. Additionally, e-therapy

may use psychoeducational and social networking websites as a way to reach and deliver

services to clients in need of therapeutic information and interventions. While each study defines

e-therapy similarly, there are distinctions (Abbott et al., 2008; Chester & Glass, 2006; Finn,

2002; Kay-Lambkin, Baker, Kelly, & Lewin, 2012; Mishna, Root, Sawyer, & Khoury-Kassabri,

2012; Perle & Nierenberg, 2012; Santhiveeran & Grant, 2005; Wodarski & Frimpong, 2013).

E-counseling. For the purpose of this study, the concept of "e-therapy" will not be considered "e-counseling" as e-counseling is defined by Abbott et al. (2008) as an instantaneous online interaction, similar to an interaction taking place in person, with no long terms goals and no initial concern for treatment. E-counseling may also be conceptualized as an acute, or time limited "crisis" intervention, in contrast to e-therapy, which is organized around creating treatment goals and a plan. However, research indicates that e-therapy and e-counseling may be used interchangeably throughout mental health professions and across the world (Abbott et al., 2008). The growth of technology and lack of language consistency signifies a need for social work to establish concrete and universally accepted understandings and definitions of online therapeutic interactions and interventions.

Macro

Global technological shift. The invention of the personal computer, followed by the Internet and the innovation of smart phones has allowed for technology to invade nearly everyone's public and private lives (Chester & Glass, 2006; Mishna, Root, Sawyer, & Khoury-Kassabri, 2012). The Internet, more specifically social media, has provided an avenue and platform for human interaction that might otherwise not occur. According to a study conducted by The International Telecommunication Union (ITU), it was reported that by the end of 2015, 80% of households in developed countries will have Internet access and roughly 34% of households in developing countries will have some form of access ("Internet used by," 2015).

Similarly, the United States Census Bureau reported in 2013 that 74.4% of households reported having Internet access, with 73.4% of those households having high speed Internet. Additionally, the findings indicated 62.4% of the households in the lowest income population, those earning less than $25,000 a year, owned a desktop computer, laptop, or a cellular phone. In

fact, 77.6% of the households who owned a computer (desktop, laptop, or cellular phone) had

"some access" to the Internet, and over 97% of those households with "some access" were

reported having high speed Internet access (U.S. Census Bureau, 2014).

These statistics may indicate a shift in the average household perspective, both in the

United States and Internationally. The research may suggest that personal computer use and

Internet access are becoming more of a necessity in today's society and that while income

barriers do exist, socioeconomic status is becoming less indicative of computer and high speed

Internet access every year. It is noteworthy that the exploration and expansion of online

therapeutic treatment is gaining worldwide attention, as nearly half of the clinical research

included in this literature review is developed by international sources (Abbott, Klein, &

Ciechomski, 2008; Chester & Glass, 2006; Kay-Lambkin, Baker, Kelly, & Lewin, 2012; Mishna

et al., 2012; Santhiveeran & Grant, 2005).

Social work profession. In the social work profession conscious inclusion of technology

may be indicative of a tipping point, allowing for all encompassing change in the way the

general public conceptualizes social work and also in direct practice with clients (Mishna et al.,

2006; Finn, 2002). Much of the research suggested that forms of communication outside of

traditional face-to-face interactions have become commonplace in the social work profession.

Mishna et al. (2006) and Santhiveeran and Grant (2005) agree that many of these "online"

interactions have helped shape the contemporary therapeutic relationship between the client and

clinician. Social workers are already practicing components of alternative electronic therapy on a

daily basis. In fact, the telephone and email may be considered a form of e-therapy, as it is

communication outside of the traditional model based on person-to-person interactive therapy.

Based on the previous findings, social workers have actually used e-therapy to interact with

clients for decades (Mishna et al., 2012; Santhiveeran & Grant, 2005; Wodarski & Frimpong, 2013).

Mezzo

  Increased access or reach. The social work profession should acknowledge the role that e-therapy can play in reaching certain populations that traditionally have not had access to mental health care services. The reasons for limited access may be due to an individual's financial situation, lack of local resources, inadequate healthcare coverage, geographic location, physical immobility, lack of transportation, social isolation, fear of addressing psychological issues, or just the stigma that is associated with being the recipient of mental health services (Abbott et al., 2008). Outside of the aforementioned barriers, perhaps e-therapy allows for the otherwise preoccupied individuals, like mothers, to receive mental health care services in the privacy of their own home, on their own time, once other household responsibilities are taken care of as findings in this literature review suggest that women make up the majority of e-therapy clients (Chester & Glass, 2006; Menon & Rubin, 2001).

  The Internet provides a significant opportunity to establish an access point to reach those who otherwise would not seek therapy. In fact, a survey conducted by the Pew Research Center (2013) identified that more than eight out of ten (85%) Americans use the Internet and over three-fourths of those individuals access the Internet from their home. Coincidentally, Wodarski and Frimpong's (2013) research agrees with integrating the Internet into direct practice citing that e-therapy creates an opportunity to reach up to 85% of clients who are in need of mental health services but do not currently receive them. It is crucial for the expansion and professionalization of social workers to explore this progressive treatment option (Day & Schiele, 2013).

Isolated populations. Much of the research indicated that there are many diverse populations that may benefit from components of e-therapy (Abbott et al., 2008; Chester & Glass, 2006; Kay-Lambkin et al., 2012; Mishna et al., 2012; Perle & Nierenberg, 2012; Santhiveeran & Grant, 2005; Wodarski & Frimpong, 2013). The diversity may range from geographic isolation to social isolation due to presenting disorders. Many studies identified the impact e-therapy might have on rural or otherwise isolated clients who may be disabled, home-bound, deaf, or even caregivers to loved ones who are chronically ill (Kay-Lambkin et al., 2012; Santhiveeran & Grant, 2005; Wodarski & Frimpong, 2013).

Individuals who self-isolate by avoiding mental health services due to the stigma of receiving mental health services may be another population that can be positively treated through the use of e-therapy (Wodarski & Frimpong, 2013). Perle and Nierenberg (2012) indicated that the medical field is already using e-therapy to treat individuals in rural regions and even individuals who are overseas. It is imperative for the social work profession to establish a position in this conversation, as it may be the next step in the professionalization of our field (Day & Schiele, 2013).

Micro

Methods of communication.

Email. Research has also proposed that the telephone is not the only method of e-therapy currently used in direct clinical social work practice (Chester & Glass, 2006; Santhiveeran & Grant, 2005; Wodarski & Frimpong, 2013). Many social workers use electronic messaging, or e-mail, to support administrative goals or to relay therapeutic information to clients in between sessions. However e-mail is not widely considered a tool to directly deliver treatment (Menon & Rubin, 2001). Research suggests that the benefits of incorporating a text through e-mail supports

the therapeutic relationship and enhances the client's involvement in treatment (Childress, 1999a; Mattison, 2012).

Videoconferencing. As of 2005, videoconferencing was reported to be growing in popularity. Social workers most often cited being interested in videoconferencing at a significantly higher rate than other mental health care professionals. Eleven years ago Santhiveeran and Grant (2005) stated there is a lack of use of videoconferencing in e-therapy in general, with possible explanations for its absence being the cost and technical difficulties (Perle & Nierenberg, 2012). In 2016 this is no longer the case.

Supplemental. Menon and Rubin (2001) agreed with Wodarski and Frimpong (2013) that e-therapy, more specifically videoconferencing, is considered to be the most supported and substituted for face-to-face therapy. Furthermore, much of the research suggests that social work students and professionals consider e-therapy to be supplemental, operating in tandem with an in-person therapeutic process (Menon & Rubin, 2011; Wodarski & Frimpong, 2013). Even though social workers and social work students consider e-therapy to be largely supplemental, the findings suggest that e-therapy is considered an effective tool in delivering treatment for Panic Disorder, Anxiety, Post Traumatic Stress Disorder (PTSD), Tinnitus Distress, Depression, alcohol and other drug use, addictions, headaches, body imagine concerns, anger and stress management, grief, self-esteem issues and reluctance to seek treatment due to stigma (Abbott et al., 2008; Chester & Glass, 2006; Kay-Lambkin et al., 2012; Menon & Rubin, 2011; Perle & Nierenberg, 2012; Wodarski & Frimpong, 2013).

Disorders and issues.

Ideal candidates. Research identified that depression, chemical dependency, anxiety, panic disorder, Post-Traumatic Stress Disorder (PTSD), sexual abuse, and, or eating disorders

are the most commonly cited issues by e-therapy clients (Abbott et al., 2008; Chester & Glass, 2006; Menon & Rubin, 2001; Perle & Nierenberg, 2012; Santhiveeran & Grant, 2005). Additional research has suggested that more abstract and interpersonal issues such as grief, self-esteem, relationships, family, body image issues and the prevention of more serious mental health disorders, are commonly seen in e-therapy populations too, but may not be directly addressed in a specific or manualized treatment program (Menon & Rubin, 2001; Wodarski & Frimpong, 2013).

Not ideal candidates. It is not uncommon for e-therapy clients to present with more than one psychological disorder that requires professional attention and a specific treatment plan (Kay-Lambkin et al., 2012). In spite of positive treatment results for a variety of mental health disorders, individuals who suffer from severe and persistent mental illness (SPMI) are likely not ideal candidates for e-therapy. Furthermore, e-therapy is not suitable for individuals experiencing current psychosis or actively suicidal patients prior to crisis intervention (Chester & Glass, 2006). In addition to SPMI, psychosis, and suicidality, individuals who meet criteria for a personality disorder (PD) may not be ideal for e-therapy either (Luepker, 2012).

Treatment. There are specific treatments addressing certain client problems that when delivered through e-therapy is just as effective as face-to-face therapy (Chester & Glass, 2006). The most common and effective form of delivered treatment in e-therapy is Cognitive Behavioral Therapy (CBT) (Chester & Glass, 2006; Kay-Lambkin et al., 2012; Menon & Rubin, 2001; Santhiveeran & Grant, 2005; Wodarski & Frimpong, 2013). CBT has been identified as just as cost effective as group therapy and is more effective in saving a clinician's time (Kay-Lambkin et al., 2012; Wodarski & Frimpong, 2013). Furthermore, Santhiveeran and Grant (2005) identified that CBT delivered e-mail in between client appointments can be an effective

additive throughout the treatment of Panic Disorder. Kay-Lambkin et al. (2012) concluded that computerized CBT combined with Motivational Interviewing (MI) modules are considered just as useful as face-to-face therapy and is viewed as acceptable to clients in both rural and urban areas. While CBT has overwhelmed the majority of research there are other forms of e-therapy that are just as effective as a face-to-face intervention.

Wodarski and Frimpong (2013) discussed the benefits of computer delivered text treatment, like email or asynchronous chat, in that it allows for the client to re-visit previous conversations with their therapist, suggesting this may provide another layer of therapy in itself. Similar benefits of computerized self-guided modules delivering treatment were also discussed (Wodarski & Frimpong, 2013). Santhiveeran and Grant (2005) noted that online chat is considered just as effective as face-to-face intervention in reducing anxiety (Rassau & Arco, 2003), loneliness (Hopps, Pepin, & Boisver, 2003) and can assist in preventing eating disorders (Zabinski, Celio, Jacobs, Manwaring, & Wilfley, 2003) at a relatively low cost, ranging from $22.50-$100.00 per thirty minute session (*M*=$50.00). While there is much to be learned about the efficacy of other online delivered treatment programs, there is still a lack of knowledge surrounding e-therapy from both clinicians and students (Finn, 2002).

Issues Surrounding E-Therapy

      Education and training. Currently practicing online therapists have reported a lack of training surrounding e-therapy (Abbott et al., 2008). A surprising finding by Finn (2002) identified that only 3.2% of future clinical social workers (MSW students) believed that e-therapy was just as effective as therapy conducted in person. Research has found that e-therapy is not only effective at addressing specific psychological issues but is also both cost and time effective for the client and the clinician (Kay-Lambkin et al., 2012; Perle & Nierenberg, 2012;

Wodarski & Frimpong, 2013). Research suggested that students had almost no evidence to back up their strong opinions surrounding e-therapy (Finn, 2002). The lack of training and education surrounding a viable therapeutic option may indicate another layer of ethical issues outside of e-therapy practice itself.

     Ethics. Although e-therapy appears to a viable option, when it comes to delivering therapy there are legitimate ethical concerns to be considered (Abbott et al., 2008; Chester & Glass, 2006; Finn, 2002; Menon & Rubin, 2011; Mishna et al., 2012; Perle & Nierenberg, 2012;Santhiveeran & Grant, 2005; Wodarski & Frimpong, 2013). Much of the research identified the issue of maintaining privacy, security, and, or confidentiality from a clinician's point of view (Abbott et al., 2008; Chester & Glass, 2006; Finn, 2002; Kay-Lambkin et al., 2012; Menon & Rubin, 2011; Mishna et al., 2012; Perle & Nierenberg, 2012; Santhiveeran & Grant, 2005; Wodarski & Frimpong, 2013).

     Furthermore, Wodarski and Frimpong (2013) pointed out that Ishizuki and Cotter (2009) identified confidentiality as the second primary reason why social workers did not pursue technological aids in their therapeutic approaches with clients. However, Wodarski and Frimpong (2013) also suggested viewing privacy from a client's perspective in that they may be more comfortable obtaining mental health services in their own home, similar to a home visit for a client who is not highly mobile. Research also identified an issue with fee setting, and subsequently reimbursement as a large ethical component in relation to treatment (Chester & Glass, 2006; Perle & Nierenberg, 2012; Santhiveeran & Grant, 2005).

     In addition to ethical concerns regarding clients, social workers have an ethical issue when it comes to maintaining an active knowledge base of legislation that affects their work (National Association of Social Workers, 2008). Santhiveeran and Grant (2005) discussed

McCarty and Clancy's (2002) findings on the increase in the use of telephone therapy after

Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act passed in 2000. The

Act allowed for the payment of Telehealth services the following year. Although there are ethical

concerns surrounding the treatment of clients, social workers work-life balance should also be

carefully considered during the process of examining and establishing ethical rules and

regulations around e-therapy.

      Risks. While there are many potential benefits to using e-therapy as a way to deliver

services, there are also concerns surrounding the risks of e-therapy. First, there is the absence of

in person verbal and non-verbal communication, or visual cues (Finn, 2002; Santhiveeran &

Grant, 2005; Wodarski & Frimpong, 2013). Many therapists rely on non-verbal communication

to pick up on how their client is feeling. While confidentiality, privacy, fee setting and

reimbursement are largely theory-based issues; research suggests that it is difficult to monitor

nonverbal cues if you cannot physically see the client you are treating. While other findings

argued visual limitation as a positive component of e-therapy (Wodarski & Frimpong, 2013), it is

likely a concern of many clinicians as it primarily affects their ability to perform their job to the

utmost of their ability of (Finn, 2002; Santhiveeran & Grant, 2005). In an effort to protect

therapist specific risks in conducting e-therapy Perle and Nierenberg (2013) suggest a therapist

should develop an online therapeutic contract outlining the specific service, benefits, risks,

allowed contact, fee and crisis plan in an effort to protect themselves and their client throughout

treatment.

<div align="center">**Conclusion of Literature Review**</div>

      E-therapy has demonstrated its potential to help many people who are suffering from

mental illness. There are a variety of reasons why people do not seek out mental health services

that may range from the cost, the stigma, lack of local resources, geographic location, general

lack of knowledge about mental health care and how to obtain such services. While there is

existing research on e-therapy, there is an increasing need to synthesize the available information

known about E-therapy in an effort to fill the gap in knowledge from a social work micro,

mezzo, and macro point of view.

E-therapy provides a viable way to reach clients who might otherwise have their mental

health needs neglected. Almost everyone in the United States has access to the Internet in some

capacity. The lack of interest and utilization of this method of treatment by social workers is

disappointing as many of the clients we serve suffer from mild to moderate psychological issues

and chemical dependency. The purpose of the paper is to conduct a research review of the

selected literature on e-therapy and the common ways e-therapy is used to treat various

disorders, as well as topics surrounding the implementation of e-therapy in the social work

profession.

The focus of this systematic research review is to synthesize and explore the implicit and

explicit ways in which e-therapy may be used in the social work profession from an ecological

perspective. More specifically, e-therapy has a place in macro level social work as it may

encourage conversations of systemic change, at least in the United States, in regard to the way in

which mental health care service is delivered. From a mezzo perspective, e-therapy may

reasonably find a home in community settings that have consistent computer and Internet access,

like public schools, libraries, churches, and non-profit community centers to name a few. On a

micro level, or direct practice, e-therapy may provide another way to successfully treat and

access clients without physically needing to be present for a session. This concept is particularly

important considering that:

As of March 30, 2012, Health Resources and Services Administration (HRSA) reported

that there were 3,669 Mental Health, Health Professional Shortage Areas (HPSAs)

containing almost 91 million people. It would take 1,846 psychiatrists and 5,931 other

practitioners to fill the needed slots. This shortage of workers is not evenly distributed as

55 percent of U.S. counties, all rural, have no practicing psychiatrists, psychologists, or

social workers (SAMHSA, 2007). Another study (Thomas et al., 2009) found that 77

percent of counties had a severe shortage of mental health workers, both prescribers and

non-prescribers and 96 percent of counties had some unmet need for mental health

prescribers.

These statistics do not even pay respect to the shortage of professional addiction workers, which

is alarming considering the United States is currently in the throws of an opioid epidemic. There

is a serious demand for social workers to find a niche in a way that maintains professional ethical

guidelines but in a way that protects against burn out. E-therapy may be a part of that solution.

Conceptual Framework

A systematic literature review was chosen to synthesize research on e-therapy by

identifying ways in which e-therapy can or cannot be integrated in the social work profession

from a micro, mezzo, and macro perspective. Background on the ecological perspective will be

provided, followed by an explanation of perspective as it is viewed from a social work lens. The

research aims to distinguish who the ideal candidate for E-therapy is, the risks and rewards,

clinician and client viewpoints, ethical and legal issues, as well as consider the impact on society

as a whole.

Social work's Carel Germain is credited for promoting social work's understanding of

psychologist Urie Bronfenbrenner's ecological perspective of human development (Hutchinson,

2011; Forte, 2007). Bronfenbrenner theorized that the way in which an individual develops is

primarily influenced by the symbiotic relationships between the individual and their relationships

to others, their own individualized process, the passing of time, and their physical environment

(Forte, 2007). Bronfenbrenner identified four systems: the immediate setting (micro),

mesosystem (mezzo), exosystem, and macrosystem (macro). These systems provide context for

understanding the influence of human behavior and interactions with the physical environment

from an ecological perspective that is influenced by generalist social work practice (Forte, 2007,

p. 136; Miley & DuBois, 2013).

The concept of e-therapy can be included in all systems from a generalist social work

perspective. Below is an outline of Bronfenbrenner's theory of ecological systems that informs

the reader how the generalist view of micro, mezzo, and macro systems applies. Additionally, the

author will describe how these systems apply to e-therapy in this research.

Micro-system

Bronfenbrenner's "immediate setting", what this research will refer to as "microsystem",

includes smaller scale interactions between an individual and their immediate environment.

These "here and now" exchanges that may be in the form of work, home life, classroom setting,

neighborhood, and family members (Forte, 2007, p. 136). However, for the purpose of this

research, the microsystem is represented by the relationship between the client and therapist in a

direct practice setting that is not based solely on face-to-face communication (Hutchinson, 2011,

p. 13). E-therapy is a component of the microsystem that represents the direct or perhaps indirect

interaction between the client and therapist. The client may be an individual, a family, or a group

formed for the purpose of providing a therapeutic intervention (Miley & DuBois, 2013)

Mezzo-system

The mesosystem (mezzo) is traditionally viewed as the interactive relationship between two or more micro level systems and does not require the individual to interact with these systems for any specific amount of time (Bronfenbrenner, 1979). For the purpose of this paper, the mesosystem will be considered the relationship between the client and their interactions between multiple microsystems that make up their environment. These interactions may include but are not limited to, the individual and their school, community, neighborhood, and any institution or organization they may come into contact with.

Exosystem

The exosystem is considered to be all that goes on around the client but does not require the client's active or direct participation. In 1986 Bronfenbrenner believed the exosystem included the residential community, the parent's professional life and network of friends, the economy and mass media (Forte, 2007). However, many facets of the external world have changed since 1986. The exosystem has expanded thanks to technology and the Internet. For the purpose of this research, it is important to understand the concept of the exosystem as the external world existing around the client. Although there is no direct interaction between the client and the exosystem, it still has the power to influence the client-therapist relationship.

E-therapy can exist as a part of the social work generalist micro and mezzo system as well as Bronfenbrenner's exosystem. At a micro level, E-therapy may require a direct interaction between the client and therapist. E-therapy may also directly or indirectly influence the therapeutic relationship, which affects the individual at a micro and mezzo level. Another perspective is that although the client may not be directly interacting with e-therapy, the notion that it exists affects the client's exosystem. For the purpose of this study, the exosystem is

considered the social work profession's implicit ethical obligation to provide services to clients

but will not be explicitly discussed in terms of the finding.

Macro-system

Bronfenbrenner's ecological theory defines the macrosystem as the set of patterns that

include culture, identity, values, customs, and laws. From a generalist social work perspective

the macro level of social work addresses social problems across communities, institutions, and

society with the ultimate goal of producing change. This may include but is not limited to local

policy changes, widespread legislative interventions, and community development (Miley &

DuBois, 2013). For the purpose of this paper, the macrosystem will include assessment of how e-

therapy may produce larger change for clients, direct practice, and the social work profession as

a whole.

The synthesis of selected articles will support the argument for an intervention that

supports change in the social work profession: professional identity, define professional

relationships with social work and interdisciplinary colleagues, reorient priorities within the

social work profession, or reorganize the system of service delivery.

<div align="center">**Methods**</div>

Data Collection and Protocol

Topic. This systematic review on the exploration and use of e-therapy as a possible and

therapeutic intervention will only include quantitative studies based on the following criteria:

they must include analysis data collected from live human subjects, produce quantitative data

that has been statistically analyzed, and/or include at least one standardized measurement tool

(GMT) pre-intervention. Qualitative articles were not included in this review because the

purpose of this study was to explore empirical data. All possible e-therapy interventions were

included in this review. The thought process behind only using articles that include at least some empirical data was a way to avoid creating a meta-analysis of qualitative articles while significantly narrowing the research pool.

Sample and design. The purpose of this review is to examine studies that provided quantitative data. There were no limitations or exclusion criteria based on a study's design or its sample population. The researcher wished to include all designs and sample populations in an effort to better understand the landscape of current research; more specifically, who is currently being treated with online therapeutic interventions and why.

Time frame. The initial search included articles from 2005-2015. Upon reflection, the researcher decided to constrict the time frame to articles published between 2010 and 2015. The shift in time frame was a way for the researcher to keep results current and applicable in contemporary society. Furthermore, only including research published in the last five years was a way to eliminate articles that may be considered outdated from a therapeutic, technological, and operational perspective.

Search strategy. This systematic review will focus on articles that contain "e-therapy", "electronic therapy", or "online therapy" in all areas of text. The researcher hypothesized that using variations of the initial search term "e-therapy" would widen the data collection net, as there are many different terms for electronic therapy across healthcare professions. However, based on this study's literature review, "e-therapy" is the term used most by social workers. The search criteria will only include articles written in English, articles that have access to full text, and scholarly (peer reviewed) journal articles.

Databases. The five databases searched in February 2016 for this review were: Academic Search Premier, Social Work Abstracts, Psychosocial Instruments, SocINDEX with Full Text,

and EBSCO MegaFILE. As mentioned above, this search originally included articles from 2005

to 2015, producing 148 results. Once duplicates were eliminated 68 articles remained. However,

in order to keep the research relevant and a reflection of technology today, the date of

publication was changed from 2005-2015 to 2010-2015.

   Elimination. After the publication range changed from 2005-2015 to 2010-2015, there

were 37 articles remaining. The researcher eliminated 13 medical articles that included the

search term, but were not considered relevant to this review. One periodical and one interview

transcript were eliminated from the results. Five qualitative studies were eliminated, including

other systematic reviews; studies that did not include a live human subject, or did not produce

enough statistically analyzed quantitative data. Overall, 11 articles were identified as appropriate

for this study. See Figure 1 below for a flowchart graphic of the inclusion and exclusion process.
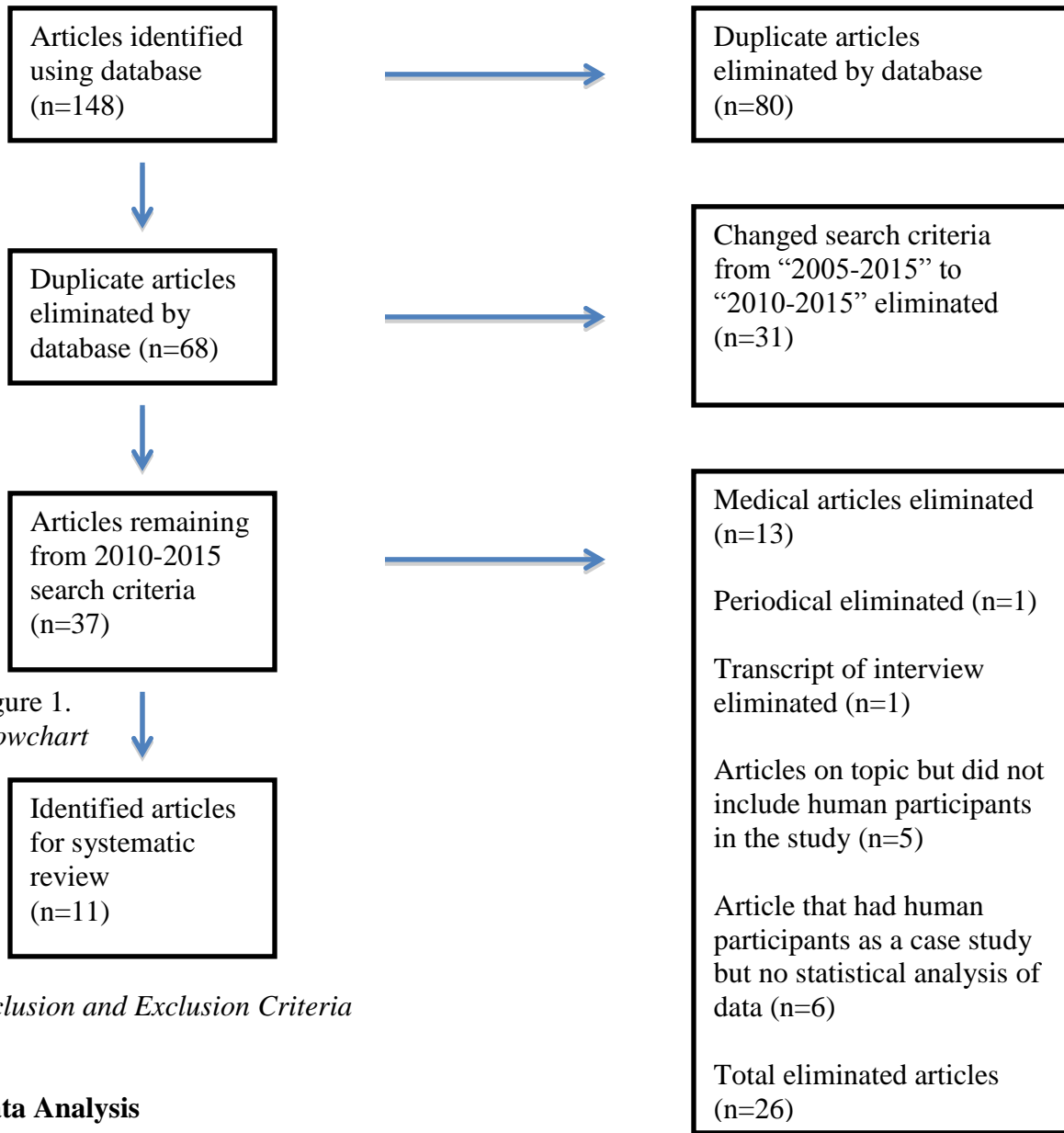
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┌─────────────────────┐                    ┌─────────────────────┐
│ Articles identified │                    │ Duplicate articles  │
│ using database      │ ─────────────────► │ eliminated by database │
│ (n=148)             │                    │ (n=80)              │
└─────────────────────┘                    └─────────────────────┘
          │
          ▼
┌─────────────────────┐                    ┌─────────────────────┐
│ Duplicate articles  │                    │ Changed search criteria │
│ eliminated by       │ ─────────────────► │ from "2005-2015" to │
│ database (n=68)     │                    │ "2010-2015" eliminated │
└─────────────────────┘                    │ (n=31)              │
          │                                └─────────────────────┘
          ▼
┌─────────────────────┐                    ┌─────────────────────┐
│ Articles remaining  │                    │ Medical articles eliminated │
│ from 2010-2015      │                    │ (n=13)              │
│ search criteria     │ ─────────────────► │                     │
│ (n=37)              │                    │ Periodical eliminated (n=1) │
└─────────────────────┘                    │                     │
          │                                │ Transcript of interview │
          ▼                                │ eliminated (n=1)    │
┌─────────────────────┐                    │                     │
│ Identified articles │                    │ Articles on topic but did not │
│ for systematic      │                    │ include human participants │
│ review              │                    │ in the study (n=5)  │
│ (n=11)              │                    │                     │
└─────────────────────┘                    │ Article that had human │
                                           │ participants as a case study │
                                           │ but no statistical analysis of │
                                           │ data (n=6)          │
                                           │                     │
                                           │ Total eliminated articles │
                                           │ (n=26)              │
                                           └─────────────────────┘
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Figure 1.
Flowchart of

Inclusion and Exclusion Criteria

Data Analysis

Quality assessment. Eleven articles met inclusion criteria for this study. An assessment

of each study's quality was conducted (see Table 1 below). The studies were scored on a 0-1 and

a 0-1-2 point scale in six categories: study design, treatment comparison, problem population

definition, reliable and valid measures, treatment manuals/adherence, and sample size. Study

design was scored based on whether there was a single group pre-test/post-test (0), quasi-

experimental or non-equivalent control group (1), or experimental design/randomized controlled

trial (2). Treatment comparison was scored based on whether the study had no comparison or

control condition (0), treatment versus "no treatment" group (1), or treatment versus "standard of

care" or placebo (2). The population and problem definition scoring was based on whether the

study had no or insufficient information (0) or whether the study had participant characteristics

and the problem clearly specified (1). Reliable and valid measures were calculated based on

whether the study did not report or had insufficient information (0), if the study had reliability

and validity reported or if it was adequate for some measure (1), or whether the study reported

reliability and validity as adequate for all measures (2). Treatment and protocol and adherence

was based on whether or not the study referred to use of a treatment program as part of the

intervention, like Cognitive Behavioral Therapy or Motivational Interviewing for example.

Treatment protocol/adherence was scaled based on whether the study had no or insufficient

information (0), some evidence of manualized treatment or monitoring (1), or if the study

included both treatment manuals/protocols and monitoring of treatment adherence (2). The

sample size was based on whether the study had only one group of participants (0), fewer than 25

participants per group (1), and more than 25 participants per group (2).

Table 1

Assessment for Study Quality

Author (Year)	Study Design (0-1-2)	Treatment Comparison	Population /Problem Definition	Reliable & Valid Measure	Treatment protocol/ Adherence	Sample size (0-1-2)	Total Score (Max	Total Mean Score

	(0-1-2)	(0-1)	s (0-1-2)	(0-1-2)		=11)	
Carroll et al. (2010)	2	2	1	2	2	2	11	
Reynolds et al. (2013)	1	2	1	2	2	2	10	
Postel et al. (2010)	1	1	1	2	2	2	9	
Postel et al., (2011)	2	2	1	0	2	2	9	
Sethi et al. (2010)	2	2	1	1	2	1	9	
Mallen et al. (2011)	1	2	1	2	1	1	8	7.45
Bower & Pulford (2013)	2	2	1	1	1	1	8	
Sucala et al. (2013)	0	0	1	1	1	2	5	
Knaevelsrud & Maercker (2010)	0	0	1	2	2	0	5	
Dowling & Rickwood, (2014)	0	0	1	2	1	0	4	
Bradford & Rickwood, (2012)	0	0	1	2	1	0	4	

The total score for each study was calculated at the end of Table 1. The average study quality score for all of the articles in this review is 7.45. Table 2, seen below, displays the "Intervention Effectiveness Scale" (IES), which takes into account the selected study's rigor. The researcher inserted the total score from Table 1 into Table 2 under the "Methodological Rigor Score" (MRS) column. The articles were split according to the median score. The median MRS was found to be eight indicating that scores eight and above were considered "higher or more

rigorous" while scores seven and below were considered "lower or less rigorous". Significant

results based on the outcome of the identified dependent variable were assessed and scored with

either "yes" or "no".

Table 2

Intervention Effectiveness Scale

Author (Year)	Methodological Rigor Score (MRS)	Rigor Level	Significant Results for	Final Intervention	Mean Intervention

	(From table 2 here)	(Higher/ Lower)	Outcome (DV) of Interest? (Yes/No)	Effectiveness Score (IES) (1-4)*	Effectiveness Score (IES) (1-4)*
Carroll et al. (2011)	11	Higher	No	1	
Postel et al. (2011)	10	Higher	Yes	4	
Reynolds et al. (2013)	10	Higher	Yes	4	
Postel et al. (2010)	9	Higher	Yes	4	
Sethi et al. (2010)	9	Higher	Yes	4	
Mallen et al. (2011)	8	Higher	Yes	4	3.27
Bower & Pulford (2013)	8	Higher	No	1	
Sucala et al. (2013)	5	Lower	Yes	3	
Knaevelsrud & Maercker (2010)	5	Lower	Yes	3	
Dowling & Rickwood (2014)	4	Lower	Yes	3	
Bradford & Rickwood (2014)	4	Lower	Yes	3	

*1= Results NOT significant + good methodology
 2= Results NOT significant + methodological problems
 3=Significant results + methodological problems
 4=Significant results + good methodology

A final intervention score for each study was calculated on a 1-4 point scale: Non-significant

result and strong methodological score (1), non-significant result and weak methodology (2),

significant result and weak methodology (3), significant result and strong methodology (4).

Scores of one and two indicate that non-significant findings suggest that the intervention was not

effective. Scores of two and three imply that weaker methods provide weaker evidence about the

study's findings. Scores of three and four indicate that significant findings suggest that the

intervention was effective. Scores of one and four mean that the study had stronger methods,

which provide stronger evidence about the findings. Figure 2 below provides a flowchart of the

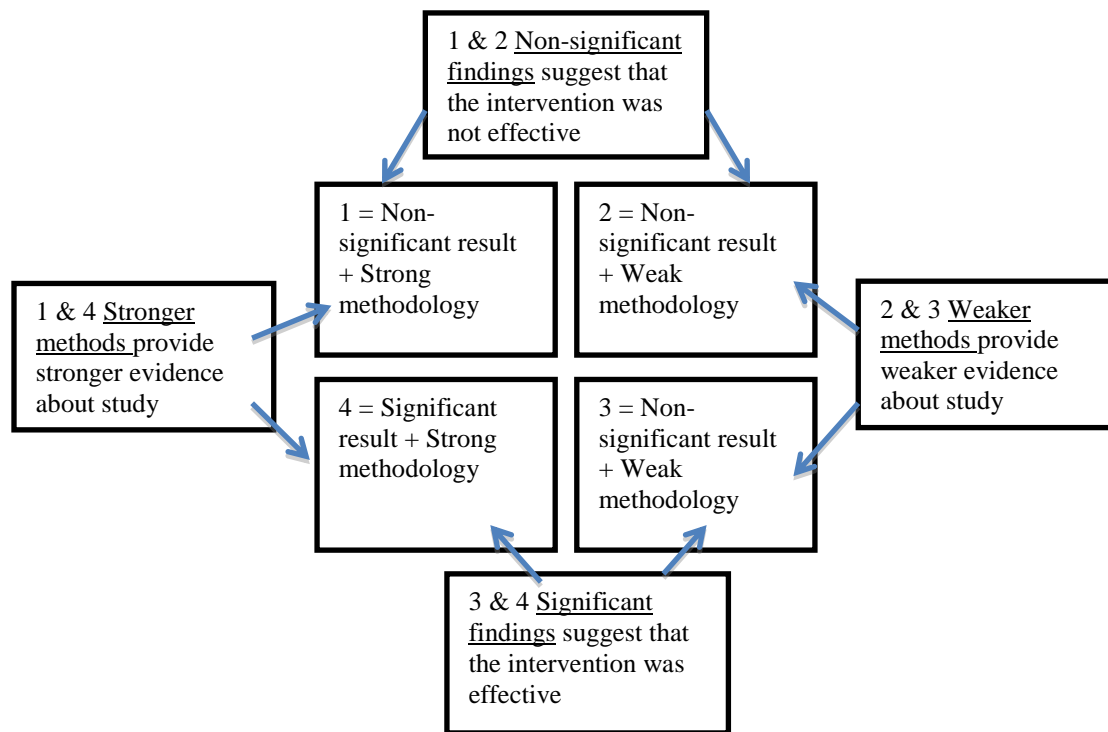interpretation of the final "Intervention Effectiveness Score" (IES).

Figure 2

Flowchart of Final Intervention Effectiveness Score

Results and Findings

Once the data was calculated from Tables 1 and 2, the themes of the articles were

identified based primarily on the sample population and general focus of the study. As seen in

Figure 1, there were eleven articles identified for this study. There were originally 148 articles

identified using the initial database search. Eighty studies were eliminated based on duplication alone, leaving 68 articles in the database. Changing the time frame from 2005-2015 to 2010-2015 produced thirty-seven results.

Thirteen articles were eliminated because they were not on topic. One periodical and one transcript were on topic but were not considered an article so they were eliminated from the search. Five articles were on topic but did not include human participants in their study. Six articles had human subjects but either produced no statistical analysis of the data collected during the study or relied on too much qualitative feedback from the subjects for their data. Twenty-six articles were eliminated, leaving 11 articles for review: Sample Population's Median or Mean Age Under 20 (3), Sample Population's Median or Mean Age Over 20 (4), and Sample Population's that Included the Clinician's Perspectives (4). The eleven articles were found in three out of the five databases used in the search: eight articles were from EBSCO MegaFILE, two articles were from Academic Search Premier, and one article was from SocINDEX with Full Text.

Themes

Two separate categories of themes (quantitative and qualitative) were identified in this review. The purpose of sorting the data into two categories served the purpose of article organization (quantitative), the presentation of data in the findings section (quantitative), and the discussion of the findings (qualitative). Both themes will be displayed in tables in the findings section of this review, but it is important to note that the presentation of the findings is primarily based on quantitative theme.

Quantitative. The quantitative themes identified in this research that are presented in the findings section are: Sample Population's Median or Mean Age Under 20 (3), Sample

Population's Median or Mean Age Over 20 (4), and Sample Populations that Included the

Clinician's Perspectives (4). The researcher chose to organize the themes around sample

population because although there is overlap with the findings in this review, there is a lack of

consistency in outcome measures from the selected articles making the presentation of the data

based on qualitative theme less cohesive.

      Qualitative. After organizing the articles around sample populations, the study's key

characteristics: subjects/problem, intervention, study design, measurement, and outcomes/results,

were recorded in an article analysis form (see Appendix for example of Table 3). The proper data

was inserted into Table 4 below. Qualitative themes were chosen based on the study's recurrent

findings. There was significant overlap of themes found between the studies. The four qualitative

themes of this review are: Perceptions of e-therapy: client and clinician (6); Varying

characteristics of e-therapy populations: depression, anxiety, psychological distress,

posttraumatic distress, substance abuse, and chemical dependency (9); Theoretical orientations of

e-therapy: CBT (module based) and psychotherapy (asynchronous and synchronous)(8); and

Exploration of the therapeutic alliance (6). Qualitative themes will be explicitly examined in the

discussion section of this study, which is presented after the findings.

Table 4

Summary of Selected Studies

Author (Year)	Database Location	Focus	Quantitative Theme	Qualitative Theme(s)	Sample	Design	Outcome Measures	Comparison Group
Dowling & Rickwood (2014)	Academic Search Premier	Examine the depth and progress of online therapeutic chat sessions, specifically their relationship to the number of sessions attended and client treatment outcomes	Under 20 Years Old	Characteristics of E-therapy Populations Theoretical Orientations Exploration of the therapeutic alliance	N=49	Survey; Pre/Post Test	SMT (4): CPDRI; K-10; SWLS; CHS-PTBP	None
Bradford & Rickwood (2012)	EBSCO MegaFILE	Explore adolescents perceptions of seeking mental health treatment	Under 20 Years Old	Perceptions of E-therapy: Client & Clinician	N=231 Nonclinical	Self Reported Questionnaire	DV: demographics SMT (7): Help-seeking preferences questionnaire; GHSQ; SSDS; TAS-20; opened ended response to vignette; Self reliance subscale of 'Psychosocial Maturity Inventory Form D' for the 11th grade; CBSS-R	None
Sethi et al., (2010)	SocINDEX with Full Text	Examine efficacy of online prevention and therapeutic treatment of depression and anxiety of adolescents in Australia	Under 20 Years Old	Characteristics of E-therapy Populations Theoretical Orientations Exploration of the therapeutic alliance	N=38	Randomized Controlled Trial	DV: beliefs on availability of mental health services, gender, age, strength of social network SMT (3): DASS-21; K-10; ATQ 30	MoodGYM (online CBT intervention); F2F; In conjunction; Control

Postel et al. (2010)	EBSCO MegaFILE	Weekly evaluation of alcohol consumption, related health problems, and motivation in an e-therapy treatment program	Over 20 Years Old	Perceptions of E-therapy: Client and Clinician Varying Characteristics of E-Therapy Populations Theoretical Orientations Exploration of the therapeutic alliance	N=527	Pre-post test (baseline; post-treatment; 6-week follow up; 6-month follow up)	DV SMT (4): CAGE; 12 alcohol consumption questions adapted from the Somatization subscale of the 90-item Symptom Checklist; RCQ-D; MfT	None
Postel et al. (2011)	EBSCO MegaFILE	Compare the similarities and differences between client populations of an asynchronous therapeutic exchange and standard face-to-face treatment	Over 20 Years Old	Varying Characteristics of E-Therapy Populations	E-therapy group 1 (n=896) E-therapy group 2 (n=707) TAU group 3 (n=1506) TAU group 4 (n=1484)	Naturalistic Group Formation	DV: gender, age, education level, working situation, earlier treatment for drinking problems	2 e-therapy groups 2 TAU groups (f2f therapy) All groups used a combination of CBT and Motivational Interviewing
Carroll et al. (2010)	EBSCO MegaFILE	Analyzed the cognitive functioning of a randomized clinical trial through the evaluation of computer delivered CBT	Over 20 Years Old	Varying Characteristics of E-Therapy Populations Theoretical Orientations	N=73	Secondary Analysis of Randomized Clinical Trial	DV: demographics SMT (4): Shipley Institute of Living Scale/WAIS; CPT; WAIS-III Digit Symbol Coding; BART Pre/Post test	TAU vs. TAU with access to CBT4CBT (online CBT intervention)
Knaevelsrud & Maercker (2010)	EBSCO MegaFILE	Evaluate symptom improvement from previously conducted e-therapy treatment was successful and	Over 20 Years Old	Perceptions of E-therapy: Client & Clinician	N=34	18-Month Follow up to Treatment derived from a Randomized Controlled	SMT (4): IES-R; Depression and Anxiety subscales of the BSI; SF-12; 12-item short form of the	Waitlist control group

		maintained by participants at an 18-month follow up		Varying Characteristics of E-Therapy Populations Theoretical Orientations Exploration of the therapeutic alliance		Clinical Trial	Medical Outcome Study Self-Report	
Sucala et al. (2013)	EBSCO MegaFILE	Explore clinician's attitudes towards the therapeutic alliance in e-therapy	Included Clinician's Perspectives	Perceptions of e-therapy: client and clinician Exploration of the therapeutic alliance	N=106	Survey	DV: demographic information Inferential Variables: Attitudes towards working alliance predict e-therapy practice	None
Reynolds et al. (2013)	Academic Search Premier	Perception of impacts and alliances in online therapy in comparison to face-to-face therapy and whether online therapy is moderated by the same factors as face-to-face therapy is	Included Clinician's Perspectives	Perceptions of E-therapy: Client & Clinician Varying Characteristics of E-Therapy Populations Theoretical Orientations Exploration of the therapeutic alliance	N=30 (therapists) N=30 (clients)	Naturalistic design using aggregate benchmarking with current online scores	DV: Demographic questionnaire SMT (4): SEQ; ARM-12; SSQ; GAS	Previously published data
Mallen et al. (2011)	EBSCO MegaFILE	Explores the dynamics of an initial online chat counseling session between clinicians in training and trained participants posing as clients: therapeutic alliance, interventions used, ability to accurately diagnose	Included Clinician's Perspectives	Perceptions of E-therapy: Client & Clinician Varying Characteristics of E-Therapy Populations Theoretical	N=54	Experimental design	IV: Likert scale rating on two questions; Assessment of preliminary Axis I diagnosis using the DSM-IV SMT (1) IOS	None

				Orientations				
				Exploration of the therapeutic alliance				
Bower & Pulford (2013)	EBSCO MegaFILE	Explore the utilization advice in comparing expertise level (experienced, inexperienced) and the format of delivered advice (video, text)	Included Clinician's Perspectives	Perceptions of E-therapy: Client & Clinician Theoretical Orientations	N=81	Between participants design	IV: perception and utilization of advice (inexperienced vs. experienced); format (video vs. text)	Four condition groups: experienced advice (video); experienced advice (text) compared to inexperienced advice (video) and inexperienced advice (text)

Note. (a) DV is representative of Descriptive Variables, or a non-standardized questionnaire was used in the study (b) IV is representative of Inferential Variables (c) SMT indicates a Standardized Measurement Tool was used I.E. Depression Anxiety Stress Scale (DASS-21) and the parenthetical number indicates how many assessment tools were used in the study (d) TAU indicates "Treatment as usual

Studied Population's Median or Mean Age Under 20

The sample populations where the majority of the participants are under the age of twenty-five included data from a psychiatric inpatient unit (N=20), clients from an online mental health support service, (N=49), a nonclinical sample from three schools in Canberra, Australia (N=231), and first year undergraduate students at the University of Sydney (Bradford & Rickwood, 2012; Dowling & Rickwood, 2014; Sethi, Campbell, & Ellis, 2010). Bradford and Rickwood (2012) explore adolescent's preferred methods of delivery for mental health services. One study examines the outcome measures of computerized CBT (cCBT) programs, MoodGYM (Sethi et al., 2010). The last study investigates the process and depth of online synchronous chat, or instantaneous messaging between a client and therapist (Dowling & Rickwood, 2014). The studies produced a mean MRS of 5.67 and an average Intervention Effectiveness Score of 3.34. These scores indicate that while the articles may have produced significant results, the weaker methodology suggests weaker evidence in regard to their findings. See Table 5 below.

Table 5

Summary of Rigor and Methodological Score for Mean or Median Population Under 20

Author	Qualitative Theme(s)	Rigor Level	Methodological Rigor Score (MRS)	Mean MRS	Intervention Effectiveness Score (IES) (1-4)*	Mean IES
Sethi et al. (2010)	Characteristics of E-therapy Populations Theoretical Orientations	Higher	9		4	
Bradford & Rickwood (2012)	Perceptions of E-therapy: Client & Clinician	Lower	4	5.67	3	3.34
Dowling & Rickwood (2014)	Characteristics of E-therapy Populations Theoretical Orientations Exploration of the Therapeutic Alliance	Lower	4		3	

Bradford and Rickwood (2012) explored adolescent's interests in methods of receiving mental health services. Participants (n=231) in both public and private schools voluntarily completed a survey that had a return rate of 76.49%. The measures used in this study varied from original questionnaires to previously designed standardized measurement tools. To assess help-seeking preferences Bradford and Rickwood (2012) used a multiple choice formatted question. The study found that nearly 58.9% of the respondents preferred face-to-face mental help. However, 23.8% preferred to not seek help at all. Only 16% had a preference for receiving mental health help online and just 1.6% preferred to seek help through the telephone. A small but significant finding ($p = .021$) was that gender played a role in participant help seeking preferences. More specifically, males were 1.66 more likely to prefer online mental health help

than females. However, Bradford and Rickwood (2012) also found that the largest intention of participants was to not seek out mental health services at all.

Sethi et al. (2010) aimed to explore alternative service delivery options in an effort to reach individuals who do not seek out mental health services for depression and anxiety. Participants (n=38) in the study were first year undergraduate students from the University of Sydney in Australia. Screening for low to moderate levels of depression and anxiety was employed in an effort to accept only participants that represent individuals who would potentially be seeking mental health treatment. If a respondent was already receiving mental health services they were excluded from the study. The study split participants into four groups: a control group, a group that received traditional face-to-face therapy, a group that used an online CBT program called "MoodGYM", and a group that used face-to-face therapy and MoodGYM. The main focus of the study was to measure pre and post-intervention anxiety, depression, psychological distress, and negative automatic thoughts. The study compared each treatment group's pre and post-intervention scores, the groups receiving treatment to the non-treated control group, and treatment groups against one another. A suggestive finding in this study was that compared to the group only receiving online treatment, the group that included both online and traditional face-to-face therapy displayed a significant decrease in all outcome measures: depression ($p < 0.01$), anxiety ($p < 0.01$), psychological distress ($p < 0.01$), and amount of automatic negative thoughts ($p < 0.01$). Another significant finding is that participants only receiving face-to-face therapy had no significant difference in improving symptoms of anxiety ($p > 0.05$) or psychological distress ($p > 0.05$) when compared to participants only receiving treatment through MoodGYM. The study concludes with compared to the control group, online treatment (MoodGYM) significantly decreases anxiety ($p < 0.05$), psychological distress ($p <$

0.05), and the rate of automatic negative thoughts ($p < 0.05$). There was no significant change in depression between the control group and participants in MoodGYM ($p > 0.05$)(Sethi et al., 2010). The results of this study suggest depression may not be effectively treated through online therapeutic interventions. However, anxiety, distress and automatic negative thoughts may be effectively managed with online therapeutic programs.

The last study varied from the previous two in that Dowling and Rickwood (2014) explored the process of synchronous chat in terms of depth and progress during online therapeutic sessions. This study's sample (n=49) was between the ages of 16 and 25, with a median age of 17. Roughly 42 of the participants were female, which is interesting considering Bradford and Rickwood (2012) suggest that adolescent males were more likely to prefer to seek out mental health treatment online. In this study Dowling and Rickwood (2014) examined a free online service for young people (aged 12-25) in Australia. The online service acts as a virtual mental health care center by providing supportive counseling, solution focused therapy, and, or cognitive behavioral therapy, depending on the client's needs. The client can use one or two sessions without serious commitment. If the client requests a third session, a more rigorous assessment is performed and a subsequent treatment plan is created. The counseling service is provided by qualified and supervised "mental health clinicians". Their occupation titles range from: psychologists, social workers, mental health nurses, and occupational therapists.

After signing up and logging on to the website, the client is brought to a virtual "waiting room" where they are guided to a clinician, told of any waiting times, or if there is a long wait the client is asked to re-schedule an appointment at a later time. Sessions are 50 minutes long. The client has the option to return for a second appointment with the same clinician or they may log in at any time and "talk" with any clinician that is currently available. Participants identified

their issues as: depression and anxiety (65.2%); relationships with peers (26.1%); partner and

family issues (23.9%); and suicidal ideation and self-harm (10.9%).

Dowling and Rickwood (2014) systematically coded the 49 online chat transcripts using

the 11-step "Counselling Progress and Depth Rating Instrument" (CPDRI) developed by

Bagraith et al., 2010. It is interesting to note that this is the only instrument that has been

designed for and also used in therapeutic online chat (Bagraith et al., 2010; Chardon et al., 2011).

Out of these 49 transcripts, 33 transcripts were from single sessions and 16 transcripts were two

sessions. Progress and depth scores were established for five common stages of the counseling

process: orientation, problem clarification, goal exploration, action planning and lastly,

termination. The total depth score ranges between zero and 33. None of the participants reached

all 11 steps in the counseling process. Participants who engaged in two sessions showed

significantly more progress ($p < 0.001$) and reached a greater depth ($p < 0.001$) in the counseling

session than those who engaged in one session. These findings suggest that the more sessions, or

support, a client receives, the better off the client may be. It was noted that the stages oriented

around goal exploration were least frequently engaged in, suggesting this is a possible weak area

of short-term online counseling.

During the problem clarification stage the process of the client telling their story was the

most in-depth and most frequently worked through suggesting that a primary purpose of online

counseling may be to encourage the client to simply share their story. Additionally, issues the

client wished to work through during the session were generally implied as opposed to explicitly

discussed. Alleviation of psychological distress was considered statistically significant in pre and

post-intervention measures ($p = 0.001$). No statistical significance was found for life satisfaction

or hope. There was a small positive correlation between session progress ($p = 0.044$) and session

depth (p = 0.036) in relation to changes in the client's psychological distress level. Analysis of a

more specific counseling process revealed that the depth of problem clarification was statistically

significant in relation to positive change in distress (p = 0.047). Action planning progress (p =

0.008) and depth (p = 0.008) were also moderately correlated with alleviation of psychological

distress. These findings may suggest that online synchronous chat can potentially be a way to

address, and improve, psychological distress in a client.

Sample Population's Median or Mean Age Over 20

The sample population where the mean or median age of the participants was over the

age of 20 had different characteristics than the previous group of articles. This sample population

included data from individuals who sought services in an outpatient clinic for their substance

abuse issues (N=73) and participants who have signed up for online services in a naturalistic

study to alleviate their problem drinking (N=4593; N=527). Additionally, this sample population

represents participants who had previously been involved in a randomized controlled trial for

post-traumatic stress related issues (N=34)(Carroll, Kiluk, Nich, Babuscio, Brewer, Potenza &

Lejuez, 2010; Knaevelsrud & Maercker, 2010; Postel, de Haan & De Jong, 2010; Postel, de

Haan, ter Huurne, Becker & de Jong, 2011). These studies collectively produce a mean

Methodological Rigor Score of 8.75 suggesting they are on the higher end of the data collected

for this survey. The studies produced an average Intervention Effectiveness Score of 3

suggesting that collectively the data shows significant findings in that the intervention was

effective but may lack consistently strong methodology. See Table 6 below.

Table 6

Summary of Rigor and Methodological Score for Mean or Median Population Over 20

Author (Year)	Qualitative Theme(s)	Rigor Level	Methodological Rigor Score (MRS) (Max=11)	Mean MRS	Intervention Effectiveness Score (IES) (1-4)*	Mean MRS
Carroll et al. (2010)	Varying Characteristics of E-Therapy Populations Theoretical Orientations	Higher	11		1	
Postel et al. (2011)	Varying Characteristics of E-Therapy Populations	Higher	10		4	
Postel et al. (2010)	Perceptions of E-therapy: Client & Clinician Varying Characteristics of E-Therapy Populations Theoretical Orientations Exploration of the Therapeutic Alliance	Higher	9	8.75	4	3
Knaevelsrud & Maercker (2010)	Perceptions of E-therapy: Client & Clinician Varying Characteristics of e-therapy populations Theoretical Orientations	Lower	5		3	

Substance abuse. Carroll et al. (2011) aimed to explore cognitive functioning and CBT outcomes for participants in this study. Symptomology was not measured or analyzed in this study. The article examines secondary data from a randomized clinical trial of CBT4CBT in a community setting (n=73). Participants were recruited from a community-based outpatient setting for substance users. Individuals were excluded if they did not speak English, had not used alcohol or illicit drugs in the previous 28 days, if they failed to meet DSM-IV criteria for a specified substance use disorder, if they had a previously untreated psychiatric disorder, or if they were considered unlikely to complete the eight weeks of treatment due to a change in living situation or a scheduled court date.

A total of 77 individuals met criteria to participate, 73 initiated treatment and 48 finished the program (n=22 in CBT4CBT; n=26 in TAU). The average number of computer sessions for those in CBT4CBT was 4.3 out of the 6 sessions offered with an average of 38.3 minutes per session. The sessions were structured in the following way: the module opened with a brief video of actors in situations considered "realistic"; immediately following the video, the narrator explained the key skills covered in that session; the video was repeated with a positive outcome in the end. The purpose of this was to emphasize how individuals could "change their story" using the skills learned throughout the sessions. There were additional video vignettes throughout this process. Interactive assessments were also included in each session. Toward the end of the module participants watched a video that included testimonial of how the actor in the vignette applied each skill learned in the module (session). Assessments were conducted prior to engaging in treatment, two times each week during treatment, and eight weeks post treatment. The average amount of completed homework assignments was three. Carroll et al. (2011) found

that an association with drug use and completion of homework was strongly correlated with drug use outcomes.

Carroll et al. (2011) analysis of it's sample population's cognitive impairment remains consistent with findings in previous work suggesting that the participants exhibited similar mild to moderate difficulties in memory, speed, attention, risk taking, and general cognitive function (Grohman & Fals-Stewart, 2004; Gooding, Burroughs & Boutros, 2008; Lejuez et al., 2002). An interesting finding is that general intelligence scores (Shipley) and cognitive functioning was not significantly correlated with any of the primary outcome measures in either treatment group. Carroll et al. (2010) suggests that this may be due to participants being able to complete the program at their own pace, repeat modules, and replaying videos and vignettes may be beneficial for those who have cognitive impairments. This may indicate that e-therapy has the potential to be an indiscriminate treatment modality in terms of cognitive functioning.

Carroll et al. (2010) also found that slower CPT reaction times and higher BART scores (assessment of risk-taking) were significantly associated with retention in the CBT4CBT group but not for those assigned to the control. Higher BART (higher risk-taking) scores are associated with less completion of homework, poorer retention, and poorer drug use outcomes for those assigned to CBT4CBT but not the control group. Although this study has mixed results, it is important to note that these findings suggest that an individual's cognitive ability, or intelligence level, does not directly affect outcomes in computerized CBT treatment. Rather an individual's risk-taking behavior is a more likely predictor of whether this online therapeutic intervention will have a positive outcome in both treatment and further drug use (Carroll et al., 2010).

Postel et al. (2011) also explored characteristics of client populations in regard to e-therapy in comparison to treatment as usual (TAU) or standardized treatment. This study used

voluntary participants split into four naturalistic groups. Two groups received e-therapy and two groups received treatment as usual. The results indicate that there are significantly more women in e-therapy groups (44.0% and 50.9%) than in face-to-face groups (24.2% and 22.8%) where there was no significant difference between the groups. Furthermore, significantly more clients were highly educated (university level education)(49.8% and 52.0%) when compared to the face-to-face therapy groups (9.2% and 11.3%). A higher education level of problem drinkers seeking online therapy (54%) was also found in a similar study created by Postel et al. (2010) a year earlier. It should be noted that this finding around education might be attributed to the studies being conducted in the Netherlands. E-therapy participants were also found to have a significant correlation in having paid work (84.4% and 80.0%) in comparison to the face-to-face group (46.1% and 48.4%). An important finding in this study was that e-therapy participants were more likely to be first time seekers of alcohol treatment (Postel et al., 2011; Postel & de Jong, 2010). Lastly, the average age of e-therapy clients were slightly older than face-to-face clients (Postel et al. 2011).

As previously mentioned, Postel et al. (2010) conducted a pilot study prior to examining characteristics of problem drinkers that involved the treatment of problem drinkers in e-therapy. The therapists involved were all qualified social workers who spoke to participants asynchronously though online chat. It should be noted that this is the only study that explicitly reported on the fact that all social workers were used as clinicians. Although the "therapists" never met the participants, they worked with them in an effort to establish a goal and to reach this goal by processing four steps: helpful thoughts, helpful behaviors, decision moments, and making an action plan. Part one of the intervention required the participant to keep an online diary of their drinking habits. The therapist gives feedback and in order to move on to the next

step the therapist must give their approval. Advice is given and participants have an option to discontinue the study if they choose. Participants were eliminated for health reasons and, or, an inability to set a well-considered goal. If participants were considered in crisis, they were provided with relevant information and referred to the proper treatment channel. Although this study's intervention is organized around CBT principles, it is not explicitly stated in the article.

Upon completion of the program, over half of the participants achieved their treatment goal (58.1%). Overall, those who completed the program displayed a significant decrease in their weekly alcohol consumption (n=154), decreasing from 38.8 units reported at the baseline to 14.2 units at the posttest ($p < .001$). The follow up at 6 weeks (n=125) reported a decrease from 38.5 to 17.7 ($p < .001$). The follow up at 6 months was reported to show a decrease from 38.6 units to 15.5 ($p < .001$). An interesting finding when comparing participants who discontinued the program after "Part 1 self-control" (n=264) was that they had statistically significant higher alcohol consumption per week ($p < .01$), and differed in weekly drug use, working situation, and age in comparison to the treatment group. Similar to Postel et al. (2011), the group receiving e-therapy treatment was older than the group who discontinued; this may suggest that older individuals might be more committed to working an online program (Postel et al., 2010). Upon completion of the program the participants rated the e-therapy program as well as therapist contact on a likert scale, with a score of 1 being "most negative" to 5 representing "most positive", as safe (M=4.77), pleasant (M=4.64), and very personal (M=4.21). This data may suggest that an online therapeutic intervention tool is not as impersonal as originally believed.

Stress. Knaevelsrud and Maercker (2010) examined a treatment group (n=34) a year and a half after they completed the online treatment program specifically designed for Post Traumatic Stress Disorder (PTSD) The purpose of their research was to explore long-term

effects of online CBT treatment. This study found that post-treatment symptoms were maintained at an 18-month follow up in regard to PTSD symptoms as well as issues with depression and anxiety. An important finding was that when asked if the participants had re-read their journal notes (62%) and therapist's comments (50%) the majority of the participants said yes.

Primary Emphasis on Clinician's Perspectives

The last group of articles had a sample population that represented clinician's perspectives. The four articles included data from clinicians and a combination of clinicians and clients. The first article explores clinician's attitudes surrounding the therapeutic alliance in e-therapy (n=106). The second examines the impact of exchanges and strength of the therapeutic alliance in online-text psychotherapy from both a clinician's (n=30), and client's (n=30) perspective. The next article looks at the process of synchronous chat and examines the clinician's ability to successfully apply interventions, the strength of the therapeutic alliance and their ability to accurately diagnose the client (n=54). Lastly, the use of advice from face to face and Internet mediated advisors is explored (n=82). The selected studies produced a mean MRS score of 7.75 and an average IES of 3 (See Table 7 below).

Table 7

Summary of Rigor and Methodological Score for Articles Including Clinician's Perspectives

Author	Qualitative Theme(s)	Rigor Level	Methodological Rigor Score (MRS) Max=11	Mean MRS	Intervention Effectiveness Score (IES) (1-4)*	Mean IES
Reynolds et al. (2013)	Perceptions of E-therapy: Client & Clinician Varying Characteristics of e-therapy Populations Theoretical Orientations Exploration of the Therapeutic Alliance	Higher	10		4	
Mallen et al. (2011)	Perceptions of E-therapy: Client & Clinician Varying Characteristics of e-therapy Populations Theoretical Orientations Exploration of the Therapeutic Alliance	Higher	8	7.75	4	3
Bower & Pulford (2013)	Perceptions of E-therapy: Client & Clinician Theoretical Orientations	Higher	8		1	
Sucala et al. (2013)	Perceptions of E-therapy: Client & Clinician Exploration of the Therapeutic Alliance	Lower	5		3	

Sucala et al. (2013) reported that over 71% of the clinicians (84.8% psychologist; 5.7% social worker; 5.7% psychiatrist; 3.8% counselor) in the study believed the therapeutic alliance to be "extremely" important in face-to-face therapy. This is not a surprising finding. However, what is surprising is that only 47% of the selected clinician's reported that they were confident in their interpersonal skills to develop a strong working alliance with all of their clients in face-to-face therapy. This perceived confidence was related to the number of years a clinician had been in practice ($p < .05$). A clinician's perceived ability of being able to develop a strong therapeutic alliance with all of their face-to-face clients was directly related to their perceived ability to develop a strong therapeutic alliance with an e-therapy client (13.2%). This finding indicates that a clinician must have confidence in their ability to connect to clients, and their confidence is directly related to their years in practice. However, it is important to note that over three-fourths of the participants were psychologists, not clinical social workers. It would be interesting to learn how the six (5.7%) social workers in this study responded to the questions.

Only 24 (24.8%) of the clinician participants actually provided e-therapy in their scope of their career. Although previous experience was not significantly correlated with a clinician's perceived ability to develop an alliance with a client (Sucala et al., 2013). Previous experience working with e-therapy clients, and perception of the clinician's own ability to develop a therapeutic alliance with a client through the Internet were the only two variables that were significant predictors of future e-therapy practice ($p < .05$). These findings suggest that a clinician's confidence in their ability to create and build connections with clients over any therapeutic platform, and prior experience in e-therapy, allows for an opening for social workers to gain experience in e-therapy practice (Sucala et al., 2013).

Reynolds et al. (2013) focused on the hypothesis that if e-therapy was to be effective, then client (n=30) and clinician (n=30) perceptions should agree that the experience is similar to face-to-face therapy. The second aspect of this study aimed to assess participant factors, identified as the therapists' experience and theoretical orientation as well as the clients' symptom severity and social support, that affect both patient and therapist alliance ratings. This study explored these impacts through therapist ratings over a span of 394 weeks while clients rated 475 weeks. In this study SEQ scores measured the sessions impact through subscales oriented around assessing depth, smoothness, positivity, and arousal. Therapists using text had all around higher SEQ scores than face-to-face therapists other than the arousal subscale. Another important finding in this study is that therapists who were treating clients with higher symptom severity found their SEQ scores as significantly less smooth ($p < .01$) and positive ($p < .05$). Furthermore their relationship was perceived as less bonded, or their therapeutic partnership less strong ($p < .05$). This finding suggests that more symptomatic clients may be less effectively treated through e-therapy (Reynolds et al., 2013).

Furthermore, therapists in this study who identified their orientation as cognitive-behavioral perceived their clients as significantly more confident ($p < .05$) than therapists in other theoretical orientations (Reynolds et al., 2013). Lastly, Reynolds et al. (2013) discovered that the clients who considered themselves to have more social support considered their online sessions as "more comfortable" and "less distressing" (SEQ scored significantly more smooth ($p < .05$)) as opposed to clients who did not believe they had social support. Overall the findings in this study indicate that e-therapy is possible, and the connections between therapist and client can be maintained, particularly if the client is less symptomatic and believes they have social support outside of the therapeutic session. These results should be interpreted with caution

considering the limitations of the study but they also provide hope for the future of e-therapy as a way to interact with people who are experiencing psychological distress.

Mallen et al. (2011) explored how counselors in training conduct a session through synchronous chat (instant messaging). Transcripts were coded and analyzed in this study. Mallen et al. (2011) found that the most frequent intervention used by the counselors in training were approval and reassurance ($p < .01$), then open ended questions ($p < .01$), confrontation ($p < .05$), followed by self-disclosure ($p < .001$), or other interventions ($p < .05$). Counselors in training were significantly less likely to use interpretations ($p < .001$) or direct guidance ($p < .001$).

The second purpose of this study was to explore whether a counselor was able to make an appropriate diagnostic assessment during the chat session. Specifically wondering if a counselor could accurately diagnose depression, anxiety and, or a client who presented as mixed depression and anxiety. Mallen et al. (2011) found that roughly 90% of the counselors in training were able to accurately assess for depression and 86% were able to identify anxiety, or a phobia, in their assigned client. Other diagnostic assessments were 37% adjustment disorder, and 26% relationship problems.

A final purpose of this study was to examine the perceived closeness and therapeutic alliance between the clinician and the client from the clinician's perspective. The counselors in training indicated a significant increase from their initial perception of their abilities to a post-intervention measure ($p < .01$). However, it should be noted that the closeness score was 3.35 (SD = 1.2) indicating that there was still some therapeutic distance measured in this study (Inclusion of Other Scale (IOS) Aron et a., 1992).

The final study in this systematic review performed by Bower and Pulford (2013) examined the use of advice provided by an in person advisor in comparison to an online advisor.

This study may not directly measure therapeutic impact in a therapy setting, but it does assess whether the format of advice provided makes a difference to the client. The participants in this study were set up to play 30 rounds of a "prisoner dilemma game" in which they received advice over the Internet and in person. Most importantly Bower and Pulford (2013) found that there was no significant effect on the format in which advice was given ($p = .97$) and no significant effect on expert advisor level ($p = .60$). These findings suggest that the method of advice delivery (online or in person) may not matter and that the level of experience an advisor, or therapist.

Discussion

The research focused empirical articles that explored populations, psychological issues or disorders, and outcomes of e-therapy in an effort to understand how the data can be applied to a broader social work landscape. Upon review of this study's findings, four qualitative themes of the clinical focus emerged: characteristics of e-therapy populations (8), theoretical orientations used in e-therapy (7), perceptions of e-therapy: client and clinician (6), and the exploration of the therapeutic alliance (6). Although the results had thematic overlap, the selected outcome measures varied significantly rendering the data difficult to merge in the findings section of this review. This particular finding surrounding the difficulty in the organization and presentation of the data is consistent with the selected studies assertions supporting the necessity of future research to develop and maintain consistent outcome measures for evaluating e-therapy practices (Dowling & Rickwood, 2012; Mallen et al., 2011).

All of the literature in this review reported at least one significant finding for an outcome measure but the measure reported as significant might not have been a primary variable of interest. In general, the articles selected for this review scored relatively high in methodological rigor in relation to one another with eight of the eleven articles scoring above the median split

(8). The mean methodological rigor score was determined to be 7.45 out of eleven. Only two of

the articles reported no significant findings for the dependent variable of interest. Unfortunately,

the one study that scored a perfect eleven out of elven in methodological rigor reported no

significant findings. The mean intervention effectiveness score was 3.27 out of four, suggesting

that these results should be interpreted carefully, and not generally applied.

Characteristics of e-Therapy Populations

Eight of the eleven articles selected for this study address characteristics of populations

that use e-therapy to some degree. Participants in the selected studies were considered older, and

used a sample of both men and women but the majority of the participants' skewed women. All

of the nine articles explore psychological suffering ranging from depression, anxiety, and, or

stress (Mallen et al., 2011; Sethi et al., 2010). Additional presenting issues for populations under

the age of 20 may include relationships with peers (26.1%), partner and family issues (23.9%)

and suicidal ideation and self-harm (10.9%)(Dowling & Rickwood, 2012). Adult populations

may have additional presenting issues like post-traumatic stress (Knaevelsrud & Maercker, 2010)

or substance abuse and chemical dependency as well (Carroll et al., 2011; Postel et al., 2010;

Postel et al., 2011).

Outside of presentation of symptoms, the severity of these symptoms should be

considered when determining whether e-therapy treatment is an appropriate option for someone

seeking mental health services (Reynolds et al., 2013). Findings in this literature review suggest

that there have been statistically significant improvements for participants presenting with

depression, anxiety, stress, PTSD, psychological distress anxiety, and substance abuse or

chemical dependency in e-therapy programs. Carroll et al. (2011) suggests that other factors of

personality make up, like risk taking, affect treatment results as well. This is an interesting

finding considering the most widely used theoretical orientation for e-therapy is CBT. Generally, CBT does not consider patterns of individual behavioral to be governed by personal history and personality into account suggesting that a psychodynamic, or a more individualized treatment approach in regard to e-therapy treatment may be appropriate.

Theoretical Orientation

Seven out of eleven studies addressed the topic of theoretical orientation either directly or indirectly in their research. Two studies out of seven explored the experience of synchronous chat (Dowling & Rickwood, 2012; Mallen et al., 2011). Chat in e-therapy may be considered a more relational, psychodynamic approach to online therapeutic interventions. Six out of the seven selected articles contribute to by far the most prevalent form of online therapeutic intervention, computerized Cognitive Behavioral Therapy (cCBT)(Carroll et al., 2010; Dowling & Rickwood, 2012; Knaevelsrud & Maercker, 2010; Postel et al., 2010; Postel et al., 2011; Sethi et al., 2010). This is a particularly interesting finding considering CBT is considered an appropriate intervention by insurance and is generally covered over a limited period of time in face-to-face direct practice. There was significant variability in this review regarding the delivery of cCBT, highlighting another aspect of inconsistency in this research.

The method of service delivery and discussion focus varies significantly across these studies. Four studies evaluated self-initiated online programs hosted on websites (Dowling & Rickwood, 2012; Postel et al., 2010; Postel et al., 2011; Sethi et al., 2010). The way the websites were organized varied as well. Sethi et al. (2010) presented online modular programs like "MoodGYM" (Seth et al., 2010), there were websites with virtual therapy chat rooms that may be considered more of a stop-gap intervention offering cognitive behavioral therapy, supportive counseling and, or solution focused therapy (Dowling & Rickwood, 2012). These findings agree

with the literature review that online chat may be considered just as effective as a face-to-face intervention in reducing anxiety (Rassau & Arco, 2003), loneliness (Hopps, Pepin, & Boisver, 2003) and can assist in preventing eating disorders (Zabinski, Celio, Jacobs, Manwaring, & Wilfley, 2003). Although the online chat sessions examined in this study were free, online chat is considered to be operable at a relatively low cost, ranging from $22.50-$100.00 per thirty minute session (M=$50.00).

Other programs used cognitive behavioral concepts like online journaling, including feedback from therapists (Knaevelsrud & Maercker, 2010; Postel et al., 2010; Reynolds et al., 2013). In fact, cognitive behavioral therapists believed their clients to be significantly more confident than therapists who identified with other theoretical orientations. Perhaps this is due to the process of writing and recording thoughts so that a client and therapist are able to measure success based on writings, and reread both their own and therapist's comments (Reynolds et al., 2013). Carroll et al. (2010) used a modular version of cCBT called CBT4CBT in a community outpatient setting that showed vignettes and videos, where tools learned in regular face-to-face therapy could be reinforced.

Perceptions of e-Therapy

Five out of the eleven studies in this review explored perceptions of e-therapy. Bradford and Rickwood (2012) explored adolescent beliefs around seeking mental health care treatment. According to their research young people in Australia are more likely to seek face-to-face treatment (58.9%) than online therapy. However, nearly one quarter of the young respondents preferred to not seek mental health assistance at all (23.8%). This is an alarming finding about the state of mental health access for young people.

When examining adult client perceptions Postel et al. (2010) found that the participants suffering from problem drinking rated their experience of the e-therapy program on a one through five point Likert scale as safe ($M=4.77$), pleasant ($M=4.64$), and very personal ($M=4.21$). Bower and Pulford (2013) explored participant's utilization of advice from expert and novice online and in person advisors. This study found that the format of advice given by the advisor did not matter to the recipient, nor did the advisor's level of expertise. This finding may indicate that the way information is shared (video versus text), and qualifications of the therapist (novice versus expert) do not necessarily matter. Rather, the simple fact that help is available is actually more indicative of whether someone will use that help or not.

Reynolds et al. (2013) suggests that e-therapy is a viable option, particularly if the client exhibits behavior that is to be considered less symptomatic, and if the client believes they have social support outside of the therapy session. This finding by Reynolds et al. (2013) and exclusion criteria in Sethi et al. (2010) supports the literature review in that individuals who experience more severe symptoms related to psychological disorders, personality disorders, are suicidal, or are currently experiencing psychosis are not ideal candidates for e-therapy (Chester & Glass, 2006; Luepker, 2012).

Issues surrounding the accuracy of diagnostic evaluation were addressed in Mallen et al. (2011) who found that 90% of counselors in training were able to accurately assess for the most common Axis I DSM-IV disorders. Ultimately, both client and clinician perceptions of e-therapy indicate areas of strength that are otherwise not found in face-to-face therapy, particularly the ability to document and review therapeutic interactions from the past (Knaevelsrud & Maercker, 2010). These findings begin to address the lack of knowledge surrounding e-therapy perspectives from both students and clinicians posed by Finn (2002) in the literature review.

Therapeutic Alliance

In general, the therapeutic alliance between a client and therapist is considered important in the therapeutic process. Six of the eleven studies explore the concept of therapeutic alliance in this study (Dowling & Rickwood, 2014; Knaevelsrud & Maercker, 2010; Mallen et al., 2011; Postel et al., 2010; Reynolds et al., 2013; Sucala et al., 2013). Individuals who attended more sessions were recorded as experiencing significant levels of more progress ($p<.001$) and greater depth scores ($p<.001$) in a session than individuals who only attended one session (Dowling & Rickwood, 2014). Participants in Postel et al. (2010) rated their relationship with their online therapist as very personal ($M=4.21$). Fifty percent of participants in Knaevelsrud and Maercker's 2010 study reported that they went back to their journal notes and reread their therapist's comments in times of need. However it is important to note that participants who were more symptomatic felt that their therapeutic partnership with their online therapist was less strong ($p < .05$), less smooth ($p < .01$), and less positive ($p < .01$)(Reynolds et al., 2013). Overall, previous e-therapy experience, as well as confidence in a clinician's own ability to develop an online therapeutic alliance with clients, significantly predicts future e-therapy practice (Sucala et al., 2013). This finding may suggest that clinician exposure to e-therapy practices, and training around proper online therapeutic techniques, can help build clinician confidence and expand service delivery.

Limitations

As previously discussed, many of the limitations in this study surround the generalizability of the findings. The data should be interpreted with caution although it does indicate areas of hope for populations struggling with various psychological issues and disorders. One area that the findings failed to address was around the characteristics of those signing up for e-therapy in

terms of their geographic location. It would be interesting to add another component to descriptive variables that provide a description of exactly how far away someone utilizing online mental health resources is from a metropolitan area.

Additionally, these articles did not explore demographic characteristics around income, or explicitly acknowledge the cost or fee of the e-therapy programs. Perhaps this is due to the quantitative nature of this review. Furthermore, other mental health issues were not discussed such as: eating disorders, specific types of anxiety like social anxiety, fears, or phobias, diagnostic comorbidity was not explicitly discussed in the literature, rather it was implied. Lastly, the scope of this review did not allow qualitative analysis of ethical considerations regarding e-therapy.

Implications for Practice and Future Research

While the research should be considered with caution and limited generalizability, this review was able to identify areas where e-therapy shows promise on all levels of social work. From a macro perspective, the findings from this review coupled with the identification of the four qualitative themes, may begin to suggest that there is room for discussion surrounding systemic change in terms of service delivery in mental health care. This is where an opportunity for social work to join the conversation begins, as only two of the eleven articles explicitly stated they used social workers as mental health clinicians.

Assessing the findings from a mezzo perspective allows for the results to be interpreted on a level oriented more towards social issues. Of particular importance are the findings surrounding addiction. According to Postel et al. (2011) in 2005, only 16% of individuals who qualified as having a DSM-IV alcohol use disorder sought treatment. As previously stated the data should be cautiously interpreted, but there is an indication that aspects of e-therapy work for

individuals who are struggling with substance abuse, especially for those who might not

otherwise seek treatment (Postel et al., 2011). Furthermore, on a mezzo-level scale, online

therapeutic interventions like MoodGYM may be added to junior high or high school curriculum,

as a way to provide easy access to mental help services for young individuals who might not

otherwise seek treatment (Carroll et al., 2010; O'Kearney, Kang, Christensen & Griffiths, 2009)

     Micro level analyses of the results in this study suggest that e-therapy is a viable service

delivery option for individuals experiencing mental health issues as well as clinicians. At the

very least, e-therapy could offer supplemental maintenance (Menon & Rubin, 2011; Wodarski &

Frimpong, 2013) to traditional face-to-face therapy and is considered worth looking into on

behalf of clients and social workers across the country.

     Future research on the topic of e-therapy should continue to include clinical trials as well

as naturalistic studies that involve fee assessment and insurance coverage. Particular importance

should still be given to the descriptive variables like demographic information. Additional

questions could also include a participant's current residence, a rough estimate of population,

knowledge of local face to face resources that address mental health concerns, reasons why the

individual sought online therapy, and proximity from nearest large or medium sized city.

     Research should also focus on replication of outcome measures and should consider

using the same standardized measurement tools (SMT) as previously published studies. There is

evidence that e-therapy has potential to positively impact individuals suffering from mental

health issues, social work and other mental health care professions should continue to explore

and build the current pool of data that supports the efficacy of online therapeutic interventions.

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Appendix A

Table 3

Example of Completed Article Analysis Form

Article citation in APA Style
Bradford, S., & Rickwood, D. (2012). Adolescent's preferred modes of delivery for mental health services. *Child and Adolescent Mental Health Child, 19*(1), 39-45. doi:10.1111/camh.12002
Research questions(s) and/ or hypothesis(es)
Determine whether adolescent's do prefer online over more traditional types of mental health service delivery, what their help-seeking intentions are for a commonly experienced mood disorder and the factors that affect these intentions; Hypothesized that girls would prefer face to face and phone based services, boys would have greater preference for the more anonymous online help; And that these help seeking preferences would be evident in help seeking intentions; Intentions to seek different types of help were thought to be related to previously established help-seeking barriers
Independent variable(s) and operational definition(s); how measured and what is known about the validity and reliability of the measure(s)
Participants (boys and girls)
Dependent variable(s) / and operational definition(s); how measured and what is known about the validity and reliability of the measure(s)
Help-seeking preferences: multiple choice (prefer to have help "over the phone", "online" "face to face" or "I would not seek help", open ended question of why they had that preference Help seeking intentions: "General help seeking questionnaire (GHSQ)(Rickwood et al., 2005; Wilson, Deane, Ciarrochi & Rickwood, 2005, PG 41 of article for references); likert scale; Total help-seeking intention score=responses for each of the categories were averaged (phone, online, face to face and none)
Control or intervening (modifying) variables (specified or not)
Self-stigma: "Self-stigma of depression scale" (SSDS); Emotional competency: adapted 12 item version of the 20 item "Toronto Alexithymia Scale (TAS-20)(Bagby, Parker & Taylor, 1994); Mental health literacy: Vignettes that had scored responses, averaged to obtain total mental health literacy score (highest being 6); Self reliance: self reliance subscale of the "Psychosocial Maturity Inventory Form D" for the 11th grade; Shyness: Revised check and buss shyness scale (CBSS-R)(Crozier, 2005
Sample – type, how constructed, size, and characteristics
Community nonclinical sample; 231 students (139 females; 92 males) from age 15 to 19; three schools in Canberra, Australia
Data collection – methods and procedures (how, when, where, and by whom were data collected).
Community nonclinical sample; 231 students (139 females; 92 males) from age 15 to 19; three schools in Canberra, Australia; 30 minute long questionnaire;
Type of research design (true experiment [name specific design] quasi-experiment [name specific design], survey, secondary data analysis, etc.… What are issues regarding the validity of design (consider the internal validity of an experimental or quasi-experimental study)
Community nonclinical sample; self-report questionnaire
Purpose of the research (explore, describe, explain, etc.…)

Explore the relationship between early help seeking intentions and preferences and gender of adolescent students
Data analysis - list the statistics used in data analysis
PASW Statistics 18 with alpha set at .05; less than 5% missing data over all items (data is assumed "missing at random"; Bivariate Pearson's product movement correlation coefficients (*r*)   Gender: Pearson's Chi-square test – only three participants chose "over the phone" so the category was removed; 2(gender) x 3(grade) x 4(help-seeking preference) mixed analysis of variance (SPANOVA) with a repeated measure on the last factor was performed; all assumptions were met except for sphericity and the Hyynh-Feldt correction was employed (Tabachnick & Fidell, 2007)   Path analysis conducted to reveal the indirect effects and enable prediction of multiple dependent variables (AMOS 18)(Arbuckle, 1983-2005)   Sample size of 231 met the minimum of 200 ensuring high statistical power
Findings, results, or outcomes of the research (*report* findings here; *discuss* them below)
Preferences to help sources: 58.9% preferred face to face (more personal, body language, trusting environment, help seeker knows who they are talking to, customized feedback); 23.8% not to seek help (too scared, did not like talking about themselves); 16% preferred online (anonymity of the internet, information was easily accessible, people in chat rooms who have gone through the same thing); 1.3% over the phone but that was thrown out; Gender differences within preferences: 2X3 chi-square test was statistically significant x^2 (2, N=228) = 12.79, p=.002 (small to medium effect size), Cramer's V = .24 indicating that gender was related to help source preferences; Males were 1.66 times more likely to prefer online sources than females; females were 1.58 times more likely to prefer face to face help than to not seek help compared with males; gender and preferences of online help and not seeking help were nonsignificant; Intentions to use each help source: highest intention was to not seek help, then face to face, then online, then phone; **Predictive model of help-seeking intentions**: hypothesized model did not fit the data; **Multivariate model**: only direct predictor of online intentions was a moderately strong intention for face to face help while the only direct predictor of getting face to face help was a weak relationship with mental health literacy.
Conclusions (address the external validity of the study; address any issues about the research which lead you to question the validity of the findings)
Adolescents still hold a majority preference for help provided face to face, highest behavioral intention is to not seek help at all. Preference for f2f rather than online help could be explained by the "mere exposure effect" of attitude formation (Zajonc, 1968) – which would maintain that the greater familiarity of face to face help explains its precedence; online help is new and unfamiliar   Boys would rather use online help than girls, girls prefer face to face, boys would rather not seek help than do face to face (agrees with previous research)(Gould et al., 2002). Intention to seek help was dependent upon mental health literacy (as the only direct predictor) Gender has an indirect effect through literacy. **Important relationship between mental health literacy and f2f help seeking intentions is important because mental health literacy can be improved (Kelly, Jorm & Wright, 2007; Write, McGorry, Harris, Jorm & Pennell, 2006).   Not seeking help = low intention to seek help face to face, higher self stigma, indirect effects through lower mental health literacy, lower emotional competency, greater shyness and being female = suggests that, at this point in time, the online format has not overcome the barriers that cause adolescents not to seek help (at least in Australia) ; Suggests that to encourage the uptake of online interventions, adolescents should be exposed to this alternative help seeking source through whole school interventions, which enable them to trial the format before they even need to use it (behaviorally based awareness and exposure interventions – could possibly change their attitudes)

online is perfect because they can deliver to large numbers of young people in a nonintrusive and cost effective way.
Ethical issues and safeguards (specified or not)
Research ethics approval; informed consent, parental consent for those under 18
Practice implications
Concerning that providing help through different means will not increase the likelihood that young people facing certain barriers will actually use new avenues of help
Policy implications
An awareness campaign promoting online services may increase adolescent's preferences (Phoenix Research, 2006 – about ad campaign for mental health problems like depression)
Research implications and next logical research steps (re: questions; hypotheses; methods)
Longitudinal approach is required, based on mere exposure theory; further investigate the barriers and whether preferences change within different modalities
Limitations - author's(s') critique of this research
Australia; "elderly adopter of online mental health interventions and the sample may have been further biased by those who declined to participate"; nonclinical sample, which asks if the same results would be found, many important barrier/factors may have been omitted;
Your critique of this research
Lots of questions about the "chat room" idea of talking to other people who have gone through the same thing; still prefer traditional face to face therapy, small group wants online, overwhelming lack of preference for the phone, 1 in 4 still prefer not to seek help at all (online options have not broken this) ; Is it just because people don't know about it? Don't know how to use it