

UNDERSTANDING HOW MENTAL HEALTH CARE DELIVERY  
AFFECTS CLIENT OUTCOMES AND SATISFACTION

by

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The COVID-19 pandemic forced society to make many abrupt shifts in order to ensure the safety of the general public. In the mental health care industry, this required the field to take an unforeseen leap into remote delivery of clinical services. This study looks at the effects of the shift to telehealth through the lens of the University of Oregon Psychology Clinic. Clients receiving treatment at the clinic completed pre- and post-treatment outcome measures and had the opportunity to complete a clinic evaluation survey. Based on these measures, we found that telehealth services were able to produce clinically and statistically significant reductions in symptoms. Participants also indicated a strong satisfaction for treatment that they received, suggesting that, with proper framework and training opportunities, telehealth may be a viable resource in the mental health care industry.

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## **Introduction**

As society's awareness of the impacts of mental health and treatment for mental illness has led to a significant increase in accessibility and resources available to those who need it, the field still has a long way to go in order to ensure that its recipients are receiving care that best suits their individual needs. According to the National Institute of Mental Health, in 2019 there were an estimated 51.5 million adults (approximately 20.6% of the population) in the United States living with mental illness. Of those, approximately 40.1% received treatment in the form of in-patient therapy, out-patient therapy, or prescription medication (NIMH, 2021). Considering that one in five people in the United States deals with mental illness, and that the majority do not receive treatment, it is important that treatment options are as efficient and effective as possible, while also taking into account individual needs.

Given recent circumstances of the COVID-19 pandemic, there has been a substantial influx of telehealth options for therapy, providing a new perspective on how feasible and effective online mental health treatment can be. Prior to the onset of the pandemic, approximately 7% of mental health services provided by psychologists were taking place through telehealth. Of the various types of practice settings, the Veteran's Affairs Medical Center had the highest usage of remote mental health services prior to the onset of the pandemic, due to the geographically remote locations in which clients resided (Godleski, Darkins, & Peters, 2012; Pierce, Perrin, Tyler, Mckee, & Watson, 2021). Based on a report from the RAND Corporation, there were more than 300,000 military service members and one million family dependents that lived in geographically remote locations, requiring that accessible options be made available

(Luxton, Pruitt, Wagner, Smolenski, Jenkins-Guarnieri, & Gahm, 2016). In an effort to understand the feasibility, safety and clinical efficacy of Home-Based Telebehavioral Health, Luxton and colleagues (2016) compared the effects of the online setting with those of a traditional in-office setting on military personnel and veterans dealing with depression. In their study, they randomly assigned participants to either condition, then assessed at baseline, mid-treatment (four weeks), post-treatment (eight weeks), and three months after treatment. They found that there were significant reductions in depression symptoms and hopelessness in both groups, along with improvement observed on measures of PTSD symptoms and anxiety. In terms of safety, they also found that there was no evidence of clinical worsening for the telehealth condition, making online treatment no less safe than traditional in-office treatment.

Despite telehealth being an effective and accessible means of delivering therapy, many therapists did not choose to adopt it into their practice prior to the COVID-19 pandemic; only about 21% of psychologists had used telehealth in their practice (Pierce, Perrin, & McDonald, 2020). Furthermore, approximately 75% of psychologists and other mental health providers claimed that they were unwilling to refer clients to telehealth therapy options (Perle, Burt, & Higgins, 2014). Along with the rapid changes in society surrounding the COVID-19 pandemic, the mental health field had to adopt a new structure, with a 12-fold increase in the amount of mental health treatment delivered through telehealth (Pierce, et al., 2021). A national study conducted during the pandemic assessed how psychologists thought mental health care delivery might change in the post-pandemic future. They found that participants projected that 35% of their work would be conducted via telehealth even after the pandemic restrictions are lifted,

as compared to the 7% that was being conducted prior to the pandemic (Pierce et al., 2021). These results indicate an important shift in attitudes surrounding the use of telehealth among mental health providers.

### **Risks and Benefits of Telehealth**

The dawn of the Covid-19 pandemic served as the perfect storm to allow the mental health care field to reassess the feasibility of remote therapy. Prior to the pandemic, there were hesitations and negative attitudes among therapists surrounding the usage of telehealth, alongside concerns regarding the efficacy of providing online therapy. Given that telehealth relies on the functionality of an online resource, there are technical interferences and experiential differences that can be expected with the use of this modality, such as unstable connection, frozen screen, bad audio, and poor lighting (Fernández-Álvarez, & Fernández-Álvarez, 2021; Payne, et.al., 2020). Beyond these concerns, there is apprehension regarding the therapeutic experience in an online therapy environment. Given that there is no physicality in a remote model, social facets such as eye contact, tone of voice, open posture, body movements, and synchrony may be impacted. Furthermore, clients and therapists may be prone to distraction or may pay too much attention to their own appearance on the screen, making it difficult to fully engage in the session (Markowitz, Milrod, Heckman, Bergman, & Amsalem, 2020).

Additionally, when it comes to telehealth there are operational concerns regarding informed consent, confidentiality, crisis management, and client identities (Rochlen & Speyer, 2004); these are important safety measures taken by the mental health care industry to ensure the protection of clients and the information they disclose. Without being face-to-face, there is an inhibited ability to guarantee these facets are



sufficient in serving their intended purpose. Beyond this, there is uneasiness surrounding the perceived decrease in formality that comes with an online therapy environment; with the lack of physical proximity, there is concern that this may lead to boundary crossing and deleterious effects to professionalism associated with the therapeutic relationship and treatment outcomes (Simpson, et al., 2020).

Alongside a general lack of training in providing remote therapy services, many therapists are not eager to implement telehealth in their practice due to the above concerns confounding its implementation. In multiple studies, it has been established that working alliance (i.e., the ability to create a meaningful relationship between therapist and client), is interpreted as significantly worse through the eyes of the practicing therapist when conducting therapy online compared to traditional, in-person services (Norwood, Malins, & Sabina-Farrell, 2018). In contrast, research has indicated that clients tend to have positive attitudes toward online therapy and have less concern about potential problems than their therapists (Fernández-Álvarez & Fernández-Álvarez, 2021). Furthermore, research has found that the telehealth modality is capable of providing similar outcomes, and that clients tend to be open to utilizing it (Fernández-Álvarez & Fernández-Álvarez, 2021; Norwood, Malins, & Sabina-Farrell, 2018).

Research has also indicated that remote therapy can provide benefits that are not available in traditional settings. As opposed to the in-person therapy setting, an online environment has the opportunity to promote a sense of safety, alongside a neutral power balance, that has potential to facilitate greater disclosure (Fernández-Álvarez, & Fernández-Álvarez, 2021; Simpson, et al., 2020). For example, those facing mood

disorders, interpersonal avoidance, social anxiety, or individuals who may find in-person therapy to be overwhelming, might benefit from the decreased arousal levels associated with conducting therapy in an online setting (Reynolds, Stiles, Bailer, Hughes, 2013; Simpson, et al., 2020). Additionally, a remote modality has the ability to promote attendance to therapy sessions without concern of being observed or stigmatized, which may be beneficial for demographics who may avoid receiving treatment in traditional settings. Evidence also suggests that children and teenagers may be more open to online psychotherapy given their familiarity and comfort with the modality (Simpson, et al., 2020).

Importantly, telehealth has the opportunity to mitigate issues associated with the mental health treatment gap that exists in today's society. Beyond the scope of the United States, it is estimated that there is a significant treatment gap in other developed countries (between 44-70%). And in developing countries, over 80% of those facing mental health problems are unable to access treatment (Mohsen, 2020; Ghebreyesus, 2019). Providing remote access to mental health treatment may provide a viable solution to confounds associated with this treatment gap, overcoming some of the barriers that make it difficult to receive treatment for mental illness.

Along with the unforeseen circumstances of the Covid-19 pandemic came a unique opportunity to understand the practical implications of telehealth options for mental health treatment. The risks and rewards of the modality have been more widely discussed and addressed. Potential barriers to the success of online therapy can be found in technical issues, operational concerns and negative attitudes held by therapists regarding therapeutic alliance.

However, despite these confounds, telehealth has the potential to increase the accessibility of mental health care substantially, while also providing benefits such as greater disclosure due to increased comfortability and a heightened sense of safety.

## **Objectives**

The goal of the current study is to investigate therapeutic outcomes and service satisfaction after the abrupt shift from in-person to online therapy among clients receiving treatment at the University of Oregon Psychology Clinic. This research will add to our understanding of the accessibility and efficacy of therapy conducted via telehealth. Based on previous findings that telehealth is an effective way to deliver mental health services, we expect to find that adult clients will see significant improvements in their treatment outcomes (i.e., reduction in anxiety symptoms, depression symptoms, and emotion regulation difficulties). Among minor clients (those under 18 years of age), we hypothesize that overall child behavior difficulties will significantly decrease with the use of telehealth services. For exploratory purposes, we will also investigate possible impact of client age, gender, student status, and number of total sessions on treatment outcomes. Further, we investigate service satisfaction among telehealth clients, including their ratings of their telehealth experience and their sense of progress toward their therapy goals.

## **Methodology**

The present research used archival data collected by the University of Oregon Psychology Clinic, a training clinic for clinical psychology doctoral students located on the University of Oregon campus. Data used in the current study were collected from May 2020 through September 2021 and includes pre- and post- treatment questionnaires from 29 clients who received telehealth services during the COVID-19 pandemic. All participants/participants' legal guardians signed a consent form prior to services that allows for the use of their archival data for research. The sample consists of 10 minor clients and 19 adult clients; data from these groups were analyzed separately. Participants who had received any in-person services, or who did not have complete outcome measure data were not part of this study.

### **Participants**

#### *Adult Group*

The adult group consisted of 19 clients and included six males, twelve females, and one non-binary client, with ages ranging from 18 to 45 years old ( $M = 25.74$ ,  $SD = 7.50$ ). Participants in this group received treatment for a wide range of diagnoses (e.g., anxiety, depression, and trauma), and on average attended 17.11 sessions ( $SD = 7.55$ ). In the adult group, 79% of the participants identified as white, 14% identified as Hispanic, 5% identified as Asian, and 2% identified as something else or did not respond. As this clinic is located on the University of Oregon campus, 53% of the sample consisted of university students.

### *Minor Group*

The minor group consisted of three male and seven female clients, ranging in age from 5 to 17 years old ( $M = 11.5$ ,  $SD = 4.43$ ). The average number of sessions attended was 34.2 ( $SD = 9.83$ ). In this group, 80% identified as white, 10% identified as Hispanic and 10% identified as mixed. Clients presented with a range of presenting issues/diagnoses, including anxiety, obsessive-compulsive disorder (OCD), and trauma.

### **Measures**

#### *Adult Group*

Adult client outcomes were assessed with three measures: the Patient-Reported Outcomes Measurement Information System (PROMIS) Depression Short-Form, PROMIS Anxiety Short-Form, and Difficulty in Emotion Regulation Scale (DERS), all of which were collected pre- and post-treatment. The PROMIS Depression Short-Form (Pilkonis et al., 2011) is an eight item self-report questionnaire assessing depressive symptoms over the course of the last seven days, scored on a 5-point Likert scale (1 = Never, 5 = Always); statements include “I felt worthless” and “I felt that I had nothing to look forward to.”

The PROMIS Anxiety Short-Form (Pilkonis et al., 2011) is a seven item self-report questionnaire assessing symptoms associated with anxiety and emotional distress over the course of the past seven days, scored on a 5-point Likert scale (1 = Never, 5 = Always); statements include “I felt worried” and “I found it hard to focus on anything other than my anxiety.” PROMIS measures are scored on a T-score metric with a mean of 50 and standard deviation of 10 in the U.S. general population. Scores are

categorized as *within normal limits* ( $T < 55$ ), *mild* ( $T = 55-60$ ), *moderate* ( $T = 60-70$ ), and *severe* ( $T > 70$ ).

The DERS (Gratz & Roemer, 2004) is a 36 item self-report questionnaire, scored on a 5-point Likert scale (1 = Almost never, 5 = Almost always) designed to assess multiple aspects of emotional dysregulation, including nonacceptance of emotional responses, difficulty engaging in goal-directed behavior, impulse control difficulties, lack of emotional awareness, limited access to emotion regulation strategies, and lack of emotional clarity. Statements include “I am confused about the way I feel” and “When I am upset, I have difficulty getting work done.” Total scores range from 36 to 180 and higher scores suggest greater problems with emotion regulation. There are no standardized clinical cutoffs for the DERS; however, the mean total score for participants in a group treatment for Borderline Personality Disorder (BPD) is 127.92.

Client treatment satisfaction was assessed with items from a Clinic Evaluation provided at the end of services (i.e., post-treatment). All items on this form are rated on a 5-point scale ranging from “Strongly Disagree” to “Strongly Agree.” Responses to the item “Services have been effective in helping me reach my goals” were evaluated in the current study. Another measure of client satisfaction was a telehealth rating scale; clients rated telehealth services on a scale of 0-100, with a score of 100 indicating ultimate satisfaction with services. Clients were also given the option of leaving comments regarding their treatment experience.

### *Minor Group*

Minor client outcomes were assessed with pre- and post-treatment caregiver-report on the Strength and Difficulties Questionnaire (SDQ; Goodman, 1997). The SDQ is a 25-question screening questionnaire that assesses child/adolescent emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems and prosocial behavior. Items are rated as 0 = Never, 1 = Somewhat True, and 2 = Certainly True. Total scores of 17 and above are considered to be clinically elevated.

Treatment satisfaction was assessed with items from a Clinic Evaluation provided to caregivers of minor clients at the end of services (i.e., post-treatment). The Clinic Evaluation is identical to the one used in the adult sample, although questions are written for caregivers of minor clients. Responses to the item “Services have been effective in helping my child reach their goals” were used in the current study. Caregivers of minor clients also provided a rating of telehealth satisfaction on a scale of 0-100 and were given the option of leaving comments.

## **Results**

In the following analysis of outcome measures, it is important to note that a single regression analysis was conducted on change scores from post- to pre-treatment to investigate the significance of changes in measures over the course of treatment. Descriptive statistics, such as the mean ( $M$ ) as a measure of central tendency, standard deviation ( $SD$ ) as a measure of variability, and number of participants ( $n$ ) have been reported, along with the t-statistic ( $t$ ), degrees of freedom ( $n - 1$ ), 95% confidence interval (95%CI) and the p-value ( $p$ ) where a  $p < .05$  is considered to be statistically



significant. Negative t-statistics indicate that post-treatment scores were lower (i.e., less pathology) than pre-treatment scores. In the regression analyses that are reported below, F-statistics and p-values are reported for statistical significance, and  $\eta_p^2$  is reported as a measure of effect size.

### *Adult Group*

Results from a general linear model analysis indicated significant clinical improvements in the adult group. Change scores on the PROMIS depression measure from pre-treatment ( $M = 57.49$ ,  $SD = 6.60$ ) to post-treatment ( $M = 50.26$ ,  $SD = 6.40$ ) significantly decreased, indicating improvement in depressive symptoms over the course of treatment,  $t(18) = -4.99$ , 95%CI [-10.27, -4.19],  $p < .001$ . On the PROMIS anxiety measure, change scores between pre-treatment ( $M = 61.64$ ,  $SD = 6.02$ ) and post-treatment ( $M = 54.04$ ,  $SD = 7.49$ ) significantly decreased, suggesting improvement in symptoms of anxiety over the course of treatment,  $t(18) = -5.89$ , 95%CI [-10.31, -4.89],  $p < .001$ . In regard to the DERS measure, changes scores from pre-treatment ( $M = 96.22$ ,  $SD = 22.59$ ) to post-treatment ( $M = 73.94$ ,  $SD = 20.64$ ) significantly decreased, indicating reduced difficulties in emotional regulation over the course of treatment,  $t(16) = -5.98$ , 95%CI [-28.13, -13.40],  $p < .001$ . Note that two clients in the sample were missing data for the DERS measure; therefore, they were not included in the outcome analysis.

After establishing that outcome measures for the adult group were significant, the decision was made to run an exploratory regression analysis to analyze the predictive ability of four variables on the three clinical outcome measures: age, gender, student status and total number of sessions. However, it is important to note that given

the small sample size and low statistical power, results from this analysis should be taken with a heed of caution. This analysis was done for exploratory purposes and not for hypothesis testing. Across the three outcome measures, a general liner model analysis indicated that none of these predictors were significantly related to improvement on these measures. For regression analysis of predictor variables, see Table 1.

Data from the clinic evaluation question “Services have been effective in helping me reach my goals” were evaluated to assess treatment satisfaction. Responses to this measure ranged from “Strongly Disagree” to “Strongly Agree”. In the adult group ( $n = 14$ ), 71.4% ( $n = 10$ ) of clients responded with “Strongly Agree”, 21.4% ( $n = 3$ ) responded with “Agree”, and 7.1% ( $n = 1$ ) of clients responded with “Strongly Disagree”. On the telehealth rating scale, clients ( $n = 14$ ) ranged in responses from 70-100 ( $M = 90$ ,  $SD = 9.20$ ).

#### *Minor Group*

A general linear model analysis indicated significant improvements in mental health outcomes of minors with the use of telehealth services. The change scores of the SDQ measure from pre-treatment ( $M = 16.60$ ,  $SD = 7.00$ ) to post-treatment ( $M = 10.40$ ,  $SD = 3.44$ ) significantly decreased, indicating reduced negative mental health outcomes,  $t(9) = -3.66$ , 95%CI [-10.03, -2.37],  $p = 0.005$ . After establishing that the measure had significant effects, another exploratory regression model was conducted to analyze the contributions of three predictor variables (age, gender and number of total sessions) to the clinical outcome variables. The model analysis suggested that none of the predictors significantly predicted change scores on the SDQ. However, once again, due to the

small sample and low power, results from this analysis should be taken with caution and considered only to be exploratory. See Table 1 for regression analysis of the predictor variables.

Minor clients' caregivers ( $n = 10$ ) responded to the Clinic Evaluation item "Services have been effective in helping my child reach their goals," with 90% ( $n = 9$ ) of parents responding with "Strongly Agree" and 10% ( $n = 1$ ) of participants responding with "Agree". Telehealth satisfaction rated by minor client caregivers ranged from 80-100 ( $M = 95.00$ ,  $SD = 7.07$ ).

Table 1

Regression Analysis of Predictor Variables for Change Scores of Client Outcome Measures

	<b>PROMIS-DEP</b>	<b>PROMIS-ANX</b>	<b>DERS</b>	<b>SDQ</b>
	<i>p-value</i> <i>F</i> $\eta_p^2$	<i>p-value</i> <i>F</i> $\eta_p^2$	<i>p-value</i> <i>F</i> $\eta_p^2$	<i>p-value</i> <i>F</i> $\eta_p^2$
<b>AGE</b>	0.110 2.34 0.11	0.086 3.46 0.24	0.962 0.002 0.14	0.326 1.15 0.16
<b>GENDER</b>	0.243 1.50 0.10	0.778 0.08 0.004	0.129 2.69 0.18	0.903 0.02 0.003
<b>TOTAL SESSIONS</b>	0.851 0.04 0.003	0.527 0.42 0.03	0.487 0.52 0.04	0.960 0.003 0.08
<b>STUDENT STATUS</b>	0.247 1.47 0.33	0.903 0.02 0.15	0.415 0.72 0.08	N/A

Statistics Key:

*p-value*: probability of obtaining these results by chance if there is no effect;  $p < .05$  considered to be statistically significant

*F-statistic*: comparison of predictor against a model without predictors; higher values indicate greater proportion of explained variance relative to unexplained variance

*Partial eta squared* ( $\eta_p^2$ ): Measure of effect size (proportion reduction of error associated with the inclusion of the predictor in the regression model); Values range from 0 to 1, with a score close to one indicating a high proportion of variance explained

## **Discussion**

The primary goal of this study was to investigate therapeutic outcomes and service satisfaction after an abrupt shift to telehealth for those receiving services at the University of Oregon Psychology Clinic during the COVID-19 pandemic. In our sample, we found statistically significant improvements on mental health outcomes, indicating that services provided via telehealth were effective. Beyond the scope of statistical significance, results were also clinically meaningful.

The PROMIS depression measure had a pre-treatment average in the mild range of depressive symptoms. From pre- to post-treatment there was a significant reduction in symptoms, with a post-treatment average in the normal range of depressive symptoms. The PROMIS anxiety measure had a pre-treatment average in the moderate range of anxiety symptoms and significantly dropped to a post-treatment average in the normal range of anxiety symptoms. The reductions in symptoms of depression and anxiety were both statistically and clinically significant. Depression and anxiety symptoms started in the clinical range (mild and moderate levels, respectively) and at post-treatment the average symptoms were within normal limits. Furthermore, we saw a 22-point decrease – a significant reduction – in emotion regulation difficulties. As a whole, these results indicate statistically significant and clinically meaningful change in client symptoms as a result of telehealth mental health services. Findings were similar in the minor group. Pre-treatment, the minor group average of overall mental health difficulties on the SDQ was right at the clinical cut-off; the post-treatment average was significantly lower and no longer clinically elevated. Overall, results on all four

outcome measures suggest that telehealth services were, on average, effective in reducing clinical-level symptoms to post-treatment scores within normal limits.

To gather more information about the implications of telehealth, we ran a regression analysis to see if different variables, such as age, gender, total number of sessions or student status (adult group only) had an effect on client outcomes across the four measures. Our results were unable to confirm whether these variables were predictors of the clinical outcomes. Because of the small sample size, we likely did not have the power to determine whether these null results are because clinical outcomes with the use of telehealth do not significantly differ among clients who vary in age, gender identity, whether or not they were a student at the university, or how many sessions they had. It is possible that these variables could show significant effects on outcomes in a larger sample, but our inclusive results are at least not inconsistent with the idea that telehealth services may be able improve mental health outcomes across a wide range of people and circumstances.

In addition to examining treatment outcomes, we investigated telehealth satisfaction to understand how clients felt about the treatment they received. Based on responses to one of the questions on the clinic evaluation, we found that 97% of our entire sample agreed or strongly agreed that receiving telehealth services was effective in helping them reach their therapy goals. Furthermore, telehealth ratings on a scale from 1-100 had means of 90 and 95 in the adult and child groups, respectively. Both of these measures indicate high satisfaction among clients who received services delivered via telehealth, and that clients felt like they were able to make progress in their mental health.

The above outcome and satisfaction results were corroborated by additional comments provided by clients on the clinic evaluation. In the adult sample, these comments included “She was great and I felt really listened to and comfortable,” “I think [Therapist] did an amazing job as my therapist and although I have a lot to work on, I now feel positive about the direction I am moving in,” and “[Therapist] was the best... she did everything I needed and more. I am grateful for this experience and her help will stay with me forever.” In the minor sample, caregivers of clients also provided positive remarks, including “I was surprised how much rapport [Therapist] was able to build with [Client], considering they only ever met via Zoom. She's a very talented clinician and we are very thankful for our 6 months with her,” “[Therapist] is amazing and I couldn't be more pleased with our progress and relationship! The therapy our son received has been life changing,” and “We are so thankful for [Therapist]’s help. She was wonderful with [Client] and always met her wherever she was each week, and made her feel very comfortable. [Client]’s improvement has gone beyond our expectations!” This feedback illustrates that even though clients never met with their therapists in person, they were still able to create meaningful connections that helped them reach their therapeutic goals.

Prior to the COVID-19 pandemic, therapists were hesitant to adopt telehealth into general practice due to the fear that the functionality of the modality could have detrimental impacts to therapeutic alliance and mental health outcomes (Norwood et al., 2018; Fernández-Álvarez & Fernández-Álvarez, 2021; Simpson, et al., 2020). Our findings add additional evidence to the relatively small, but quickly growing, evidence base for telehealth services, with the implication that clients are satisfied with the

experience of telehealth and that mental health outcomes can significantly improve over the course of telehealth therapy.

### **Limitations**

As can be expected, there are limitations present in the current research study, including sample size, population, and confounds surrounding the COVID-19 pandemic. The sample consisted of clients who received services from the University of Oregon Psychology Clinic after the shift to telehealth during the COVID-19 pandemic. This made it difficult to collect a large sample, especially considering that minors and adults were given different outcome measures. In particular, this had an impact on the regression analysis, increasing the likelihood of a type II error, wherein an effect was present, but the study did not have the statistical power to detect it. In the realm of research, there is controversy over the correct ratio of predictor variables to number of participants. Some argue that there should be over 100 participants to run a model with a single predictor (Green, 1991), whereas others suggest that two subjects per variable is sufficient (Austin & Steyerberg, 2015). Therefore, future studies would benefit from running a regression analysis with more statistical power. For example, it could be possible that age is a significant predictor of clinical outcomes with treatment via telehealth, considering that young people tend to be more familiar and open-minded with technology. However, these effects would likely have been undetectable due to the limited number of participants and limited variability found in the present study.

It is also worthwhile to note that our research did not utilize random assignment to compare results across in-person and remote delivery of mental health services. By utilizing random assignment, a study would be better able to conclude that any outcome



differences were due to differences in how telehealth compares to the traditional, in-person setting. Furthermore, this type of design would allow the field to take a deeper look into how these effects play out across various populations and diagnoses.

It is important to recognize that given the circumstances of the pandemic, clients were not given the option to choose between in-person or telehealth services. This could have influenced the satisfaction ratings of telehealth, considering pandemic conditions (e.g., isolation, heightened anxiety, unpredictability, etc.) and that the only option for treatment was via telehealth. Attention should also be given to the external influence that the pandemic could have had on client's improvements. Mental health outcomes may have improved with the adjustment to the pandemic over time, suggesting that as the pandemic became more familiar, clients may have naturally seen improvement. In the future, it would be important to conduct a study about the effects of telehealth during a time where mandates, restrictions, and unpredictability do not confound daily life.

### **Future Directions**

The COVID-19 pandemic has provided a unique situation to investigate new opportunities within the field of mental health care. As more studies are published, it is important that research focuses on which circumstances are suitable for telehealth services, as well as providing adequate structure and training to facilitate its adoption into general practice. In our study, we were able to cover a wide range of diagnoses; however, a more individualized approach to the uses of telehealth would be helpful toward understanding who would benefit most from having the option to utilize telehealth services. Individuals receiving treatment for mood disorders, such as

generalized anxiety disorder, depression or social anxiety may benefit from the accessibility and decreased arousal levels associated with telehealth. In contrast, an individual receiving treatment for attention deficit hyperactive disorder may be understimulated by telehealth and prone to distraction. Continuing research in this area could allow for a more personalized approach to mental health care, while also making services more accessible to those who may have circumstances that make a traditional in-person approach less viable.

With the rapid shift to remote services, the University of Oregon Psychology Clinic was required to quickly pivot to a new format of service delivery in order to meet the needs of their clients. It is promising that a small training clinic was able to make these adjustments in an efficient manner, suggesting that the implementation of telehealth could be one that is more feasible than previously expected. However, the field as a whole could benefit from additional infrastructure and therapist training to better facilitate the adoption of telehealth into general practice.

With the unforeseen circumstances that stemmed from COVID-19, the mental health care industry was forced to look at telehealth in a new light. Prior to the pandemic, there were few options for practicing and receiving remote mental health services; however, once it was the only safe option for delivering services, the field shifted their attitudes toward the modality. As more therapists have considered permanently adopting telehealth into their practice, it is imperative that research focuses on establishing credibility and framework to ensure that the field is able to provide services that best suit the needs of the client.

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