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Mental health engagement among foster and adopted youth: the transition from in-person to telemental health services

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ABSTRACT

Using the electronic health records of 55 foster and adopted youth, this study compared in-person mental health service utilization to telemental health (TMH) service utilization during COVID-19. Clients attended a greater number of therapy sessions, had more accumulated session time, and had shorter sessions via TMH compared to in-person. Similar results were found for school-aged children, females, and caregivers who engaged in their children's treatment. Notably, for non-significant differences in engagement, engagement numbers during TMH were always higher than in-person services.

KEYWORDS

Telemental health; engagement; service utilization; foster care; COVID-19

Youth with foster care experience have disproportionally higher rates of mental health problems due to the early life adversities they experience (e.g., abuse, neglect, trauma, home instability; Engler, Sarpong, Van Horne, Greeley, & Keefe, 2020; Havlicek, Garcia, & Smith, 2013; McMillen et al., 2005; Pilowsky & Wu, 2006). Past research has demonstrated that up to 80% of children in the foster care system have significant mental health problems (Polihronakis, 2008), about four times the rate of youth in the general population (Cree et al., 2018; O'Connell, Boat, & Warner, 2009). In addition, youth with foster care experience are twice as likely to report suicidal ideation and three times more likely to attempt suicide than same-aged peers without foster care experience (Evans et al., 2017; Katz, Busby, & Wall, 2021). Research also suggests that young adults who age out of foster care (i.e., alumni) continue to experience higher rates of mental health challenges than the general population (Pecora et al., 2003). For instance, a national report found that about 25% of foster care alumni have been diagnosed with post-traumatic stress disorder (PTSD), which is two times higher than American veterans and over six times higher than the general population (Pecora et al., 2005). Overall,

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experiences in foster care represent a significant risk factor for the future development of psychopathology, which underscores the need for accessible clinical interventions.

Despite the evident need for mental health intervention, the American Academy of Pediatrics reports psychological and behavioral care is the "greatest unmet need of children and teens in foster care" (Mental and Behavioral Health Needs of Children in Foster Care, 2021). Prior research has suggested that youth are not accessing services consistent with their needs. For instance, Burns et al. (2004) found that half of youth who were investigated by the child welfare system were identified with significant mental health problems; however, only a quarter of them received any services a year later. A study by Stahmer et al. (2005) found that about 75% of children younger than six who had clinical needs and were part of the child welfare system did not receive mental health services for the first 12 months of initial contact. Another study comparing kinship and non-kinship placements found that youth living with a relative were 14% less likely to get services than those placed with non-kinship caregivers (Swanke, Yampolskaya, Strozier, & Armstrong, 2016). Furthermore, mental health services use drops substantially (50–60%) for foster care alumni even though many still experience psychological symptoms (McMillen & Raghavan, 2009; Villagrana, 2017), which places them at greater risk of experiencing homelessness, substance use, incarceration, and unemployment (Lee & Morgan, 2017). Since research supports the effectiveness of psychotherapy for foster care youth and alumni (Gunawardena & Stich, 2021; Weiner, Schneider, & Lyons, 2009), the underutilization of mental health services by this population is problematic and warrants further investigation.

Barriers to engagement in mental health services

Although access to treatment is an essential first step for alleviating the mental health burdens that youth involved in foster care experience, keeping youth engaged in ongoing therapy poses another challenge that must be addressed. Prior national research has suggested that about 50% of youth receiving in-person services drop out of treatment prematurely (Pellerin, Costa, Weems, & Dalton, 2010). Reasons for client disengagement have included lack of parental involvement (Doyle et al., 2014), poor therapeutic relationships between the client and therapist, transportation difficulties, location of service, time constraints, feeling unsupported (Garcia & Weisz, 2002), the stigma associated with services (Corrigan, 2004), and lack of awareness of service benefits (Edlund et al., 2002).

Among youth with foster care experience, similar and unique barriers impede their ability to engage in continued treatment. For instance, a qualitative study found that youth in foster care are reluctant to seek or engage in treatment because they worry that they will be ostracized, not only

for seeking psychotherapeutic services but also for being involved in the foster care system (Garcia, Circo, DeNard, & Hernandez, 2015; Jee, Conn, Toth, Szilagyi, & Chin, 2014). Additionally, HIPAA and state laws allow child welfare agency staff (e.g., social workers, probation officers, foster care public health nurses) to access information that clients disclosed in treatment under certain circumstances (Judicial Council of California, 2019). As a result, it is plausible that privacy concerns may also deter foster care youth from seeking treatment and openly engaging in services (Villagrana & Lee, 2020). Moreover, significant behavior problems are often associated with placement and adoption disruptions (Barth et al., 2007; Chamberlain et al., 2006; Newton, Litrownik, & Landsverk, 2000), especially when caregivers are not receiving assistance to handle the higher demands of these youth (e.g., Fisher, Kim, & Pears, 2009), which in turn can disrupt ongoing engagement in treatment.

Further, Villagrana, Guillen, Macedo, and Lee (2018) found that negative perceptions of seeking mental health services may account for the reduced service use among foster care alumni found in other studies (50–60% drop; McMillen & Raghavan, 2009; Villagrana, 2017). In particular, foster care alumni reported negative experiences with therapists who set the session agenda, lacked empathy, and pressured clients to relive their past traumas (Villagrana & Lee, 2020). Indeed, foster and adopted youth face similar and unique challenges as youth in the general population that deter them from engaging in on-going treatment.

Impact of COVID-19 on need and access to psychological care

Although the global prevalence of youth psychological disorders has doubled since the onset of the COVID-19 pandemic (Benton et al., 2021; Racine et al., 2021), restrictions have limited access to psychotherapeutic services, such as those offered in school-based settings or the broader community. Moreover, the social distancing mandates have forced children and adolescents to isolate or distance themselves from same-age peers, which is notable since social isolation is often linked to psychological difficulties among youth (Calati et al., 2019; Laursen, Bukowski, Aunola, & Nurmi, 2007). Consistently, the rate of newly diagnosed childhood anxiety and depressive disorders has increased significantly, and youth with preexisting psychological disorders have developed worsened symptoms (Child Mind Institute, 2020; Stevanovic et al., 2021). Alarmingly, the Children's Hospital Association (2021) revealed a 45% spike in reported cases of self-harm and suicide among adolescents in the first six months of 2021, which highlights the adverse impact of pandemic mitigation efforts (e.g., social distancing) on mental wellbeing.

These statistics are likely higher for foster and adoptive youth since they most likely entered the pandemic with limited resources and more substantial psychological burdens (Greeson, Jaffee, & Wasch, 2020; Ruff & Linville, 2021;

Wong, Ming, Maslow, & Gifford, 2020). Despite potentially experiencing a greater need for psychological intervention, a recent study exploring the impact of COVID-19 revealed that around 41% of foster and adoptive caregivers reported feeling worried about their children falling behind in their mental health treatment (Langley, Ruderman, Waterman, & Franke, 2021). As the pandemic continues, it is crucial to better understand the impact of COVID-19 on foster youth engagement in mental health services to improve treatment outcomes and reduce the public health consequences posed by untreated mental health concerns.

COVID-19 and telemental health

To address the health needs of individuals during COVID-19, telehealth services – commonly defined in the literature as the use of electronic communication, from one site to another, to transmit medical information in service of benefiting a patient's health (Totten et al., 2016) – were widely implemented. In order to distinguish mental health services delivered remotely from other telehealth services, this paper will use the term "telemental health (TMH)," which is defined by the National Institute of Mental Health as "the use of telecommunications or videoconferencing to provide mental health services" (National Institute of Mental Health, 2021).

Emerging research has revealed that the transition to TMH services during the COVID-19 pandemic may be beneficial for increasing treatment engagement for children and their families. For example, a qualitative study by Svistova, Harris, Fogarty, Kulp, and Lee (2021) revealed that mental health providers and insurance agencies reported TMH services improved parental treatment engagement and responsiveness, eased transportation challenges, and reduced no-show rates among rural youth. Likewise, a qualitative study of 92 clinicians and 308 young people (12–25 years old) endorsed that attendance rates were higher after the shift to TMH services from March to June of 2020, though service use was lower compared to the same period in 2019 (Nicholas et al., 2021). Moreover, most young people (61%) in this sample felt the transition to TMH had a positive or no impact on their willingness to engage in mental health services. Further, they reported that TMH positively affected the quality of treatment and their ability to feel supported and respected by their treatment provider. To our knowledge, only one study has explored the impact of remote services on client engagement among foster and adopted youth. Coon, Bush, and Rapp (2022) found that clients attended a greater number of behavior health service appointments during telehealth compared to in-person. Broadly, this suggests that remote services might be an effective treatment modality in supporting engagement for foster and adopted youth.

Rationale and aims of the study

Youth with foster care experience are at a higher risk for developing psychopathology and experience greater rates of mental health disorders compared to the general population. In addition, the stress associated with the pandemic has likely exacerbated the psychological burden of current or former foster youth, making interventions more critical than ever. Given the early evidence suggesting that TMH and other telehealth services are a practical and beneficial treatment approach for increasing engagement among youth (e.g., Coon et al., 2022; Svistova et al., 2021), this paper seeks to extend the findings to foster and adopted youth receiving mental health services and explore additional indicators of engagement.

This paper aims to compare in-person mental health service utilization to TMH service utilization to investigate whether client engagement in mental health services changed among foster and adopted youth during the COVID-19 pandemic. Considering the logistical hurdles alleviated by TMH (e.g., transportation, time), and TMH's success in increasing service engagement among youth in the general population, we hypothesized that participants would engage in treatment at an overall higher rate during TMH compared to in-person. Further, we explored how treatment engagement was affected by age, gender, race, client diagnosis, and treatment modality.

This study addresses a gap in the current literature on the treatment engagement of foster and adopted youth and the use of TMH services to support client engagement in general. Additionally, our paper utilizes data directly from mental health records, including the number, frequency, and length of sessions, distinguishing it from various studies that use client and provider perceptions to assess TMH (e.g., Nicholas et al., 2021; Svistova et al., 2021). Findings have important implications that may redefine how quality care can be delivered to a population with significant psychological care needs.

Method

Participants

All participants in this study were actively receiving mental health services at UCLA TIES for Families (TIES), an outpatient program that provides multidisciplinary services to youth in or adopted from foster care and their caregivers in Los Angeles County, between March 13, 2019, and March 16, 2021. In response to the "Stay-at-Home Orders" initiated in California on March 16, 2020, after COVID-19 was declared a national emergency, TIES services transitioned from being generally conducted in-person to exclusively using TMH (e.g., Zoom meetings, phone calls). All TMH platforms were HIPAA compliant and sponsored by UCLA Health.

The analytic sample included 55 clients at TIES between the ages of 2 and 17 (M = 9.67, SD = 4.15). Approximately half of the participants were male (53%). The majority of client caregivers identified participants in this study as "Black" (47%), followed by clients identified as "Latinx" (29%), "White" (22%), and Asian (2%). Primary clinical diagnoses assigned included childhood emotional disorder (40%), anxiety (26%), attention deficit hyperactivity disorder (ADHD) or conduct disorder (18%), posttraumatic stress disorder (7%), and depression (9%).

Procedures

This study was conducted in compliance with the Institutional Review Board (IRB; #20-001059) at the University of California, Los Angeles. A waiver of consent was approved by the IRB to use electronic health information for clients who received services from TIES between March 13, 2019 and March 16, 2021. Client records were stored in Exym, an electronic health record platform specializing in helping behavioral health agencies manage data, progress notes, clinical activities, and billing. All information used for this study was entered into Exym by clinicians, who were required to document session information (e.g., session minutes, session dates) as part of their routine clinical progress notes. Client demographic information was reported by caregivers and entered by clinicians into Exym at intake.

Further, clients included in our study received mostly in-person services between March 13, 2019, and March 13, 2020, and TMH services between March 16, 2020, and March 16, 2021. Thus, clients' intakes and discharges were controlled to ensure clients had equal time point comparisons. Clients with an intake date two weeks after March 13, 2019, were excluded from this study. Likewise, clients with a discharge date two weeks before March 16, 2021, were ineligible for analysis.

TIES services are comprehensive and personalized to the unique needs of clients and families. Given the nature of the study, any services outside of the mental health services that were regularly offered were excluded from analyses (e.g., therapeutic behavioral services, occupational therapy, psychiatric services, psychoeducational testing). Mental health services included individual, collateral, family, and group therapy. Services rendered between March 13, 2019 and March 13, 2020 were predominantly conducted in-person; henceforth, in-person services refers to services provided prior to the transition to full-remote (i.e., TMH) services. In-person services consisted of in-person sessions that occurred at the TIES clinic, as well as phone calls. TMH services, rendered between March 16, 2020 and March 16, 2021 consisted of video conferencing sessions and phone calls. Time spent preparing, commuting, or documenting sessions (e.g., progress notes) were excluded. Lastly, clients were

ineligible for this study if, at any point, the number of clinicians changed (e.g., switching from one to two clinicians, or vice versa).

Variables

Engagement

Client engagement refers to the level of involvement the client and/or their caregiver(s) were involved in TIES treatment services, as assessed by: the total number of sessions the client attended *(Total Number of Sessions*); the yearly aggregate number of minutes the client and their clinician(s) spent in sessions *(Accumulated Session Time*); and the average minutes of direct time between clients and their clinician(s) per session *(Average Minutes per Session)*. Together, the Total Number of Sessions, Accumulated Session Time, and Average Minutes per Session were used to evaluate overall levels of client engagement at TIES in the 24-months spanning between March 2019 and March 2021.

Demographics

The client's reported age was categorized into three groups: 0 to 5 years old; 6 to 12 years old; and 13 to 18 years old. Further, the gender endorsed by the clients were classified as female or male. Finally, the client's stated race/ethnicity was categorized in four ways: Asian or Pacific Islander, Black, Latinx, or White. Ultimately, the Asian/Pacific Islander classification was eliminated because too few participants identified in this category, thus resulting in an analysis of only three racial/ethnic groups.

Diagnoses

At intake, all TIES clients are assigned a primary diagnosis by their clinician for billing and treatment purposes. For this study, all diagnostic subtypes were combined into a single, overarching domain. For instance, anxiety subtypes (e.g., generalized anxiety, social anxiety) were categorized as "Anxiety." Similarly, all ADHD subtypes (e.g., ADHD, combined; ADHD unspecified) and conduct disorders subtypes (e.g., adjustment disorder with disturbance of conduct, adjustment disorder with mixed disturbance of emotion and conduct) were classified in the "ADHD or Conduct Disorder" group. Further, the "Depression" category captured clients diagnosed with major depressive disorder (MDD) or MDD and relevant specifiers (e.g., major depressive disorder, recurrent, moderate; major depressive disorder, recurrent, mild). Lastly, diagnoses with and without post-traumatic stress specifiers (e.g., PTSD, unspecified, reaction to severe stress, unspecified) were condensed into a single "PTSD" category.

Treatment modalities

At TIES, clients and their caregivers take part in different treatment modalities depending on their family's needs. TIES services include individual, collateral,

family, and group therapy. More specifically, individual therapy involves one-on-one sessions between the client and clinician. Conversely, sessions involving the client's caregiver(s), therapist, or a separate collateral therapist are defined as collateral therapy. Lastly, family therapy involves sessions including the client, their caregiver(s), and the client's clinician(s).

Analyses

Reports were generated in Exym included client demographic information (e.g., age, diagnosis) and session information (i.e., minutes per session and session dates). Based on the data exported from Exym, Microsoft Excel 2016 was used to calculate the number of sessions, accumulated session time, and average minutes per session. The number of sessions per client was calculated by summing all sessions in which the clinician documented session time. Accumulated session time per client was calculated by adding all direct clinician-client contact. The average minutes per session were calculated by dividing accumulated time by the number of total sessions. Excel was also used to created specific categories for age and psychological diagnosis variables. Finally, Excel was used to exclude any services outside of regular mental health services provided at TIES for both in-person and TMH services.

Other analyses were completed using IBSS SPSS Statistical software version 27. A series of paired sample t-tests were conducted to investigate: a) general changes in engagement between in-person and TMH services; and b) change in engagement by age, gender, race, diagnosis, and treatment modality.

Results

Only significant results of paired sample t-tests are presented in Tables 1 through 3.

Number of sessions

As depicted in Table 1, clients, on average, attended significantly more TMH sessions than in-person sessions. Moreover, examination of the client's classified age group, gender, and race, revealed school-aged children, females, and Black and Latinx clients attended more TMH than in-person sessions. Similar results were observed for clients with a diagnosis of anxiety and childhood emotional disorder. When evaluating engagement by treatment modality, clients in this study attended more individual and collateral TMH sessions than in-person sessions. Refer to Table 1 for additional information.

Table 1. Comparing in-person and TMH number of sessions: significant findings.

	In-Person		TMH					
Category	Mean	SD	Mean	SD	Mean Difference	t	df	P
Number of Sessions**	45.96	21.77	56.11	30.40	−10.15	−3.92	54	.000
Age								
6–12**	46.81	20.84	57.15	25.17	−10.34	−3.04	26	.005
Gender								
Female**	43.96	20.10	60.38	33.32	−16.42	−3.77	25	.001
Race								
Black*	46.88	20.18	55.35	27.81	−8.47	−2.32	25	.029
Latinx*	44.19	22.34	56.88	40.50	−12.69	−2.38	15	.031
Diagnosis								
Anxiety*	56.86	24.70	71.36	36.49	−14.50	−2.30	13	.039
Child Emotional Disorder*	33.45	12.73	40.95	18.27	−7.50	−2.60	21	.017
Treatment Modality								
Individual Therapy**	21.63	10.02	28.34	15.01	−6.62	−3.51	37	.001
Collateral Therapy*	19.68	14.01	22.53	15.11	−2.85	−2.40	52	.020

*p < .05
**p ≤ .01

Table 2. Comparing in-person and TMH accumulated session time: significant findings.

	In-Person		TMH					
Category	Mean	SD	Mean	SD	Mean Difference	t	df	P
Accumulated Session Time*	2,281.93	996.59	2,553.07	1,462.49	−271.14	−2.27	54	.027
Age								
6–12*	2,209.04	774.54	2,563.30	1,045.27	−354.26	−2.20	26	.037
Gender								
Female**	2,364.27	1,023.33	2,962.19	1,519.81	−597.92	−3.35	25	.003
Treatment Modality								
Collateral Therapy*	870.79	636.08	1,009.13	737.69	−138.34	−2.25	52	.028

*p < .05
**p ≤ .01

Accumulated session time

On average, as seen in Table 2, clients spent considerably more accumulated time in therapy during TMH than in-person session. Similar results were found for school-aged children and females. A close examination of each treatment modality revealed clients spent more time in collateral therapy sessions during TMH services than in-person services. Refer to Table 2 for additional information.

Average minutes per session

As indicated in Table 3, clients on average had significantly briefer therapy sessions (i.e., fewer minutes per session) during TMH than in-person services. Results also showed that clients had substantially shorter therapy sessions for all age, gender, and race categories. Similar findings were observed among youth with a diagnosis of childhood emotional disorder and depression.

Further, close examination of engagement by treatment modality revealed significantly shorter sessions for youth receiving individual and family sessions via TMH than in-person services. Refer to Table 3 for additional information.

Discussion

The COVID-19 pandemic mitigation efforts led to the sudden emergence of widespread TMH utilization. This allowed for the study of remote mental health service engagement among foster and adopted youth, which is important given their critical need for psychological intervention (e.g., Engler et al., 2020) that has likely been exasperated due to the onset of the pandemic (Child Mind Institute, 2020; Langley et al., 2021; Wong et al., 2020). The aim of this paper was to utilize data directly from mental health records to explore how client engagement among foster and adopted youth changed during the transition from in-person to TMH services. Furthermore, we explored the impact of client demographics, diagnosis, and treatment modality on engagement. Overall, the results from this study support the general hypothesis that foster and adopted youth display overall higher engagement levels with TMH than they did with previous in-person services.

Increased engagement

This study revealed that the transition from in-person to TMH services led to clients attending a higher number of sessions and spending more time in therapy in general, particularly for school-aged youth and females. Findings of

Table 3. *Comparing in-person and TMH average minutes per session*: significant findings.

	In- Person		TMH					
Category	Mean	SD	Mean	SD	Mean Difference	t	df	P
Average Minutes Per Session**	51.38	10.17	44.94	9.22	6.44	5.78	54	.000
Age								
0–5**	52.98	13.39	40.69	13.90	12.29	5.48	12	.000
6–12**	49.62	10.06	45.55	10.06	4.07	2.92	26	.007
13+*	53.15	6.73	47.51	4.71	5.64	2.68	14	.018
Gender								
Female**	54.86	8.13	49.78	5.62	5.08	4.14	25	.000
Male**	48.26	10.91	40.59	9.72	7.67	4.27	28	.000
Race								
Black**	50.08	13.24	43.76	10.98	6.32	4.21	25	.000
Latinx**	54.05	5.96	48.02	5.46	6.03	2.97	15	.010
White*	51.30	6.34	43.02	8.96	8.28	2.96	11	.013
Diagnosis								
Child Emotional Disorder**	52.04	9.86	44.43	11.80	7.61	4.24	21	.000
Depression*	57.49	7.42	47.76	2.55	9.73	3.35	4	.029
Treatment Modality								
Individual Therapy*	50.86	11.35	46.18	9.73	4.68	2.66	37	.011
Family Therapy**	47.22	16.42	40.79	11.75	6.43	2.79	50	.007

*p \ .05
**p ≤ .01

increased client engagement in the current study align with prior research, such as a study by Frank, Grumbach, Conrad, Wheeler, and Wolff (2021), which revealed that youth and adults in the general population attended more TMH session than in-person services. Furthermore, results corroborate findings by Coon et al. (2022) which revealed that remote services increased client appointments in behavioral intervention services among a group of 25 foster and adopted youth. Our results also extend findings from Coon et al. by showing that engagement increased via TMH for mental health services for this population. Additionally, we used other indicators of engagement beyond number of appointments, such as billed minutes. Overall, the evidence suggests that TMH may be a suitable platform for supporting foster and adopted youth's engagement in mental health services.

Further, the results from the current study indicated that caregivers attended significantly more collateral TMH sessions and spent more accumulated time in collateral TMH therapy. This is congruent with studies conducted on the general population, which revealed TMH increased caregiver involvement in their child(ren)'s treatment (Svistova et al., 2021), especially among family members who were unable to attend in-person sessions (Hopkins & Pedwell, 2021). Overall, these findings may suggest TMH can be utilized to increase foster and adopted caregivers' involvement in their child-(ren)'s therapy, which is notable, since higher levels of parental involvement has been associated with increased client engagement and more favorable treatment outcomes (Haine-Schlagel & Walsh, 2015).

The increased engagement observed could be attributed to the ease and accessibility of TMH, which reduces logistical barriers that might have prohibited foster and adopted youth and their families from attending sessions more often. For instance, TMH may lessen the impact that childcare, scheduling, and transportation issues have on treatment engagement, possibly leading to increased engagement of clients and their caregivers. Alternatively, the increased need for psychological services during COVID-19 may also account for increased engagement, especially since pandemic-related research revealed a significant increase in youth mental health challenges (Child Mind Institute, 2020; Stevanovic et al., 2021). Both factors likely account for the observed increase in client engagement, with COVID-19 spurring the increased need for psychological services and expanded TMH making it easier to receive treatment.

Finally, the results of this study indicated that TMH sessions were generally briefer than in-person sessions. This finding was intriguing considering clients generally attended more sessions and accumulated more time during TMH services than in in-person services. However, it is possible that clients had a reduced need for lengthy sessions due to meeting more frequently with their providers. Additionally, perhaps clients and their caregivers preferred extended sessions when receiving in-person treatment to make the increased

effort of attending services (e.g., long commute, traffic, parking) worthwhile. Furthermore, clinicians might have also scheduled longer sessions with clients who were unable to routinely attend in-person sessions to maximize the limited amount of time they had. Moreover, sessions may have been shorter with TMH than in-person services because child and adolescent clients and their clinicians found it harder to stay engaged remotely. It is possible that clinicians adjusted session length but increased session frequency to account for higher levels of distraction with TMH and to maximize the benefit of each session.

Maintained engagement

Our results also indicate that engagement in TMH services (i.e., number of sessions and accumulated session time) was never lower than in-person services and this held true across demographics, diagnoses, and treatment modalities. This is particularly noteworthy as it suggests that at minimum, TMH was able to keep foster and adopted youth engaged at the same rate as in-person services. These results are consistent with previous literature, which has indicated TMH services are comparable to in-person services across various demographics, interventions, and treatment outcomes (e.g., Hilty et al., 2013; Ros-DeMarize, Chung, & Stewart, 2021). In part, this finding may be explained by the general knowledge and accessibility of using technology for treatment, which allowed many clients to seamlessly transition from in-person to TMH services.

Collectively, the findings from the current study are noteworthy, as they reveal that TMH not only increased client engagement, but also that the transition from in-person to TMH services can occur with no loss in engagement among foster and adopted youth. Moreover, the suitability of TMH to maintain or increase engagement was observed across diverse demographics, diagnoses, and treatment modalities, which improves the generalizability of these findings.

Limitations

The current study has several limitations that are important to note. First, the sample size was relatively small due to the exclusionary criteria, which required participants to have equal time points during in-person and TMH services. Additionally, participants who met the study's time criteria may have specific characteristics that distinguish them from clients who ended therapy earlier, possibly having more severe or complex mental health concerns requiring a longer course of treatment. Furthermore, the current study lacked a control group of youth without adoptive or foster care experience, which may pose validity concerns. Moreover, this study included a unique sample of

foster or adopted youth from Los Angeles County. Consequently, the findings may not generalize to foster and adoptive youth living in other jurisdictions. Future research should closely evaluate and design procedures that address these limitations.

Implications

Despite these limitations, the present study provides novel findings that help to understand the role of TMH in addressing the unique mental health needs of foster and adopted youth. Since research has underscored the difficulties of engaging youth with foster care experience in mental health services (e.g., Burns et al., 2004; Garcia et al., 2015; Jee et al., 2014), TMH may be a potential solution to promote continued service engagement among this population, especially among foster alumni who have higher drop off rates. Further, in light of the negative mental health consequences of the COVID-19 pandemic and the increased demand for mental health providers, TMH could be used to meet the increasing needs of individuals across distances. In essence, even though the current study was situated within a pandemic, our results indicate that TMH can be used as an alternative treatment modality to replace or complement in-person services for foster and adoptive youth. Indeed, a recent report by Child Mind Institute (2020) found that 78% of caregivers who had received TMH services for their children since the start of the pandemic were likely to continue TMH after the pandemic. These results, coupled with the findings of our study, suggest that TMH may be a popular and effective post-pandemic treatment option.

Moreover, given the unique living situations of foster youth, TMH might also facilitate the coordination of youth's care to increase access and ongoing engagement in mental health services. When young people in care change family or residential placements, they may have to also change mental health providers, creating another loss and breach of relationship. TMH offers a mechanism for continuity of mental health treatment and therapeutic relationship despite placement changes. Indeed, a previous national study found that coordination between mental health providers and local child welfare agencies was associated with the proper provision of mental health services to youth involved in the child welfare system (Hurlburt et al., 2004). The coordination between providers (e.g., therapist, teachers, pediatricians) and child welfare staff is particularly essential for youth with unstable placements as the instability of their placement poses a challenge to the effective delivery of continuous and ongoing mental health services (Simms, Dubowitz, & Szilagyi, 2000). Additionally, TMH facilitates involvement of caregivers in treatment which is particularly important in work with foster and adopted youth who have histories of trauma and disrupted attachment; use of TMH

may help caregivers receive treatment despite the barriers imposed by having multiple children with varying needs.

Although TMH might present a solution to mitigate the barriers to accessing and engaging in mental health services for foster and adopted youth and their families, it may also exacerbate social inequalities. For instance, financially disadvantaged individuals may lack the necessary resources to engage in video meetings (e.g., a personal computer, stable Wi-Fi) and consequently may not be privy to the advantages TMH affords. In addition, youth living in small households with limited quiet, private space may be deterred from expressing themselves openly due to fear of being overheard by family members. Further, others may be more distracted during sessions due to external stimuli that would not otherwise be present. These challenges could intrude on forming and maintaining a strong therapeutic alliance and may otherwise impede treatment efficacy. Further, health inequities may also exist among other disenfranchised communities who have historically had less access to the internet and technology, such as families with undocumented status (Wang, Do, & Wilson, 2018) and BIPOC individuals (Lewis, 2017). Indeed, although our data did not suggest this, previous research has suggested that individuals from some demographic backgrounds might be more likely to experience these added challenges and thus may be dissuaded from seeking and engaging in TMH services.

To alleviate the technological disparities, mental health agencies must evaluate access to technology before considering using TMH as a part of treatment. In addition, child welfare agencies must ensure access to technological devices and Wi-Fi to increase and support mental health treatment access, especially for youth in current foster placements. To this end, TMH services might be a practical approach for increasing service access and engagement of foster and adopted youth. However, it is essential to acknowledge certain demographic variables that may limit the generalizability of this study.

Future research directions

Our findings provide a snapshot of the engagement patterns of foster care youth during the first year of the COVID-19 pandemic. Given that the pandemic continues to disrupt many lives, this study should be replicated with a larger sample. Moreover, due to the unique life histories of individuals with foster care experience, it is crucial to understand the impact of these experiences on TMH service engagement. For instance, future research should investigate whether TMH engagement varies by adoption status and caregiver type (i.e., foster, adoptive, kin). Furthermore, because youth endure significant early life adversities before and during foster care placement, future work should explore the influence of pre-adoptive risk factors (e.g., neglect, placement instability, age of adoption) on TMH engagement.

In addition, future research should evaluate whether TMH services result in meaningful clinical improvements among foster and adopted youth. Additionally, research should also investigate how TMH might impact infants and toddlers given that treatment often relies on play and in-person interactions. Further studies should assess the feasibility of TMH for increasing initial access to mental health services among youth with foster care experience. It is crucial to explore existing disparities that might deter former or current individuals with experience in foster care from engaging in TMH treatment, such as socio-economic status, language accessibility, and level of mental health literacy. Clearly, much exploration is needed before a complete understanding of the impact of TMH on foster and adopted youth is established.

Conclusion

The COVID-19 pandemic has redefined how mental health services can be accessed and delivered. Our study provides novel evidence that suggests that TMH can be used as a method to engage youth with foster care experience and their caregivers, which is critical given their documented need for mental health services. As we continue to adapt to the challenges related to the pandemic, we must continue to explore how TMH can continue to be employed to meet the needs of vulnerable populations while simultaneously accounting for the digital disparities that TMH may exacerbate. Indeed, during this time of uncertainty and beyond the COVID-19 pandemic, the ability of mental health agencies to embrace and adopt technology might be critical for ensuring equitable access for vulnerable youth who may have unstable living situations and are at higher risk for developing significant mental health problems.

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