Research and Applications

Adult experts' perceptions of telemental health for youth: A Delphi study

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ABSTRACT

Objectives: Our objectives were to measure experts' opinions and develop consensus via the Delphi process on the barriers, applications, and concerns associated with telemental health (TMH) for youth.

Materials and methods: We delivered 3 online surveys over 2 months in Summer, 2016–2025 adult experts, including adults who experienced youth depression or suicidality, parents of youth with lived experience, and professionals (ie youth mental health researchers, clinicians/staff, or educators). We used the Delphi method to construct Likert and open-ended questions, developing expert consensus over 3 iterative surveys on the barriers and benefits of TMH for youth.

Results: Adult experts identified stigma and knowledge barriers to youth mental health care. Although TMH is perceived as beneficial for screening, education, follow-up, and emotional support, no single delivery method (eg websites or instant messaging) was deemed universally beneficial.

Discussion: Adults are the developers, administrators, and gatekeepers of youth mental health care. Although adult experts see potential for TMH to supplement traditional therapy via familiar technologies, there is no consensus on the technologies by which TMH should be delivered. However, there is consensus that family members and friends provide potential pathways to care; thus, an online TMH toolkit for youth would be beneficial for both caretakers and practitioners.

Conclusion: Telemental health may not overcome barriers for crisis management but adult experts agreed that TMH had potential benefits for youth. Health care organizations should conduct research and provide training and education to youth caretakers and practitioners on potential barriers and benefits of TMH technologies for youth.

Key words: telemedicine, mental health, Delphi technique, delivery of health care, youth

INTRODUCTION

Background and significance

Many youth struggling with mental health problems do not receive mental health care.[1,2] For this group, barriers to gaining access to mental health care include both psychological barriers, such as stigma and lack of knowledge about accessing mental health services, as well as structural barriers, such as a lack of transportation and provider shortages (particularly for those in rural settings).[3–9] Telemental health (TMH) technologies—which can be broadly defined as technologies used to make clinical assessments or to deliver mental health care, education, or information—may offer potential

solutions, providing a means for mental health care that is widely available, less stigmatized, and easier to access.[2–10] The pervasiveness of daily technology use among adolescents and young adults[11] raises the possibility that TMH technologies may provide a pathway for mental health services for these populations.

Over the past decade, in line with the surge of mobile phone use and ownership,[12] researchers have been developing and investigating the effectiveness of TMH across a broad range of demographic groups.[13] Telemental health can include, but is not limited to, the provision of mental health services through telecommunications technology (including training rural health care workers online), videoconferencing with consultations on behavioral health issues, "virtual" case management, and smartphone applications targeted at teaching mental health skills. A systematic review of this research has shown that TMH technologies offer convenience, confidentiality, familiarity, and integration into everyday life.[13] Additionally, patients who utilize TMH display a higher adherence for return appointments than with traditional therapy and report high levels of patient satisfaction.[13] In short, TMH is effective, and it has been shown to be effective among diverse groups, including youth populations.[13–16]

With regard to the effectiveness of TMH for youth specifically, recent reviews show that telepsychiatry (ie clinicians using videoconferencing for psychiatric care) is an effective mental health care delivery method for youth with various psychiatric issues (eg anxiety, attention deficit hyperactivity disorder, oppositional defiant disorder, etc.) in a variety of settings (eg juvenile detention centers, schools, and inpatient units).[14–16] For the most part, youth patients who received telepsychiatric care had comparable outcomes to patients receiving face-to-face services, and both parents and youth expressed satisfaction with TMH.[14–16] However, some participants expressed concerns about the modality, such as privacy issues and video limitations.[14] Moreover, telepsychiatry represents only one type of TMH technology; there are numerous applications and websites that are now available that also offer mental health support to consumers without therapist engagement. These programs, which are often based on cognitive behavioral therapy (CBT) principles and delivered via interactive websites and multimedia applications, have proven effective for reducing anxiety and depression among youth.[17]

Youth-based TMH usability research is far less advanced than effectiveness research. In the studies that have measured benefits and barriers of specific technologies, youth have responded with positive and negative feedback (eg SPARX[18,19] and CopeSmart[20]). For example, adolescents stated that while CopeSmart (a TMH smartphone application focused on emotional self-monitoring and positive coping strategies) was easy to use and provided helpful information, it was not very engaging or effective.[20] However, these findings are difficult to generalize, as the users' opinions were focused on one specific technology as compared to TMH, generally. Therefore, more generalized assessments of barriers and benefits for youth-based TMH are necessary.

As TMH use among youth is not yet widespread, opinions from adults (who have experience with mental health issues, mental health care, or both) may provide critical information for developing and refining youth-based TMH technologies. Securing feedback from these stakeholders aligns with Brofenbrenner's ecological systems theory (1979), which posits that youth are affected by various systems, including the family and wider culture. Within cultural contexts, expert opinions are paramount for decision-making; therefore, in this study, we employed the *Delphi method* using adult experts in youth mental health. The Delphi method has proven highly effective in considering diverse opinions and options and identifying consensus knowledge and priorities.[21,22] As Delphi-based mental health research is now using both professionals and those with lived experience as experts,[23,24] we included both youth mental health professionals and those with lived experience of youth mental health issues (ie adults who experienced depression or suicidal ideation during youth and parents of youth with depression or suicidal ideation) in our study.

Objectives

Our goal was to engage a panel of adult experts in the Delphi process to yield consensus on the barriers, applications, and concerns associated with TMH for youth. This Delphi study was the first part of broader research project on youth mental health issues and services, with the primary goals of identifying barriers to mental health care for youth ages 14 to 24 and examining the potential role of TMH technologies in overcoming these barriers and addressing the mental health needs of youth. The results of this Delphi study informed later focus group and survey questions delivered to youth, their families, and caretakers. As adult experts may steer the development, usage, and acceptability of TMH technologies, we saw this Delphi process as an essential step in the further refinement of TMH resources for youth.

MATERIALS AND METHODS

Procedure and data collection

As per Parkview Health's Institutional Review Board approval, prospective panel members were recruited through listservs of 5 local mental health organizations in Northeast Indiana in Summer, 2016. These mental health organizations served both urban and rural communities in the largest county in this region. All listserv recipients received a secure link to a prequestionnaire, where they were directed to select categorizations that applied to them from a list of lived experiences (eg parent of youth with depression or suicidal ideation) and professional backgrounds (eg youth mental health clinician, researcher, or educator). As per our study protocol, 40 individuals were selected randomly after the 260 replies were screened for meeting inclusion criteria. Of the 40 adult experts identified for possible participation, 25 consented to participate in the Delphi panel process. Panel members were compensated with $30 Amazon gift cards after completing the first and third surveys.

Participants

Overall, 25 experts (21 women, 4 men) consented to participate via an online informed consent process, and 24 participated in all 3 rounds of surveys. Most of the expert panel members identified as non-Hispanic, White (92%), and 8% identified as another ethnicity. In terms of age groups represented, 28% of the sample was 24–34, 32% of the sample was 35–49, and 40% of the sample was 50–64. With regard to their expert role, 4 people (16%) identified themselves as having lived experience (ie adult with experience of youth depression or suicidality or parent of youth with lived experience), 12 (48%) identified themselves as professionals (ie mental health researcher, mental health clinician/staff at mental health organization, educator that works with youth), and 9 (36%) as having both lived experience and experience working in a professional capacity with youth. Finally, in terms of their existing knowledge of TMH, 14 expert panel members (56%) were familiar with TMH, and 8 expert panel members (32%) had previously used TMH.

Measures

Expert panel members completed surveys online and anonymously—a distinguishing feature of the Delphi method—to help avoid pitfalls of face-to-face meetings (eg group think, irrational adherence to an opinion, etc.)[21]. Surveys included quantitative and/or qualitative questions and were created via iterative processes, based on previous survey replies.

Survey 1: broadly identifying barriers and telemental health usefulness for youth

Round 1 survey questions were created by the research team based on consensus, literature review, and clinical experiences. Panel members indicated the extent to which they viewed items as *barriers for youth receiving mental health services* (ie stigma, cost, transportation). For this same list of barriers, panel members indicated the extent to which these *barriers to youth receiving services could be overcome with TMH*. Panel members indicated the extent to which they viewed items as *benefits of traditional in-person therapy compared to TMH* (ie easier to talk in person, more comfortable in person). Panel members also rated potential *benefits of incorporating TMH for youth* (ie scheduling appointments, positive text messages, mood assessment). For these closed-ended questions, panel members indicated agreement using a 5-point Likert scale (1 = *not at all*; 5 = *very much*). The remaining 10 questions were open-ended, focused on drawbacks and benefits of TMH delivery methods (ie video conferencing, websites, social media), concerns and benefits of using TMH for youth, personal experience witnessing benefits and negative outcomes for youth TMH use, and potential for TMH to improve access to mental health services for youth.

Survey 2: refining barriers and benefits of telemental health for youth

Thematic analysis[25] was conducted on open-ended responses from Round 1 to identify consistencies in responses about concerns and benefits of TMH for youth. These responses were used to create closed-ended questions for the Round 2 survey, using 5-point Likert scales (1 = *not at all*, 5 = *very much*; 1 = *strongly disagree*, 5 = *strongly agree*). Items assessed were *benefits of seeing a therapist in person (vs online), benefits of using technology to address mental health needs in youth, concerns of using technology to address youth mental health needs*, and *benefits of using technology to supplement in-person therapy*. Additionally, *benefits of different TMH delivery methods for youth* were assessed on various parameters (see Table 3).

Survey 3: reaching consensus for the benefits of telemental health for youth

The goal of the Round 3 survey was consensus among panel members about prominent benefits and concerns of TMH use for youth. For granularity, we separated some responses into individual items (eg "parents, friends, family" was divided into 3 individual items) and converted others from qualitative to quantitative items (eg particular uses of TMH). Panel members indicated to what extent they thought *TMH could support the following aspects of health care for youth*: crisis support, emotional support, education, self-tracking, screenings, monitoring progress, coping tools, connecting people who are struggling, and virtual support groups. Another item assessed which individuals were effective in connecting youth to mental health resources. Additionally, panel members indicated the extent to which they were open to using, planning to use, and

comfortable using TMH to supplement therapy. All items used 5-point Likert response sets (ie 1 = *strongly disagree*, 5 = *strongly agree*; 1 = *no, absolutely not*, 5 = *yes, definitely*).

Analytic strategy

Quantitative data analysis included calculating descriptive statistics (frequency, mean) for demographic characteristics and survey items. The percentage of responses by valence (1 = *strongly disagree, disagree*; 2 = *neutral*; 3 = *agree, strongly agree*) was calculated for each item. Additionally, a consensus score[26] was calculated for each item which quantifies proximities in ordinal scales and consistent responses between experts. Consensus was defined as:

$$\text{Consensus} = 1 + \sum_{i=1}^{n} p_i \ \log_2 \left(1 - \frac{|X_i - \mu_X|}{d_X} \right)$$

In this equation, p_i is the probability for each Likert score; μ_X is the mean of X; d_X is the possible range of X, $d_X = X_{max} - X_{min}$ (eg 5–1). Here, a higher consensus score is reached between proximal responses (ie strongly agree and agree rating); dissension is evident with wider dispersion between responses (ie strongly agree and strongly disagree). Consensus was operationalized as consensus scores at 0.75 or above. At this score, no more than one expert can respond with an oppositely valenced rating than the others (with the exception for scores clustered around 3, but this case was not observed). Below this score, experts' ratings were distributed across a wider range of agreement/disagreement scores or had a few people who strongly disagreed with statements (while the rest agreed or were neutral). Data analyzes for this article were conducted using Microsoft Excel and SAS 9.4 software.

RESULTS

Perceptions of telemental health for youth

Round 1 responses revealed that the majority of experts perceived barriers for youth mental health access. With regard to specific barriers, experts were in consensus that stigma (92%) and knowledge about where or how to obtain services (80%) were primary barriers to youth seeking mental health care (see Table 1). However, there was no consensus on the barriers that TMH tools could overcome.

Among open-ended responses, 7 respondents indicated parents may be a barrier for youth seeking mental health services. In one case, a mental health professional stated:

> "In many cases parents need to give permission, especially for access to insurance, and they often do not see the importance or need for their teen to access services. Often youth do not share with their parents that they may feel the need to access these services and it is often difficult for them to access services on their own."

Meanwhile, with regard to benefits of TMH, experts were in consensus that positive text messages, automatic messaging before appointments, and self-management for anxiety were beneficial applications of TMH tools for youth. Experts also agreed that parents or other family, physicians or therapists, and faith leaders have responsibility to connect youth to mental health services. College student counselors were viewed as responsible for connecting college-aged youth to mental health services. Notably, experts did not show consensus on youth benefits of seeing a therapist in person (vs online).

Table 1. Round 1 expert consensus: barriers, benefits, and responsibility for telemental health for youth ages 14–24 years

Question	Strongly disagree or disagree %	Neutral %	Agree or strongly agree %	Consensus
Barriers to access mental health services				
Stigma	0	8	92	0.77
Knowledge about where/how to obtain services	4	16	80	0.80
Beneficial uses of TMH				
Positive text messages	0	4	96	0.79
Automatic messaging before an appointment	0	8	92	0.82
Self-manage anxiety	4	24	72	0.76
Who youth trust to help them get mental health care				
Internet/search engine	0	32	68	0.78
Responsible party to ensure *high school students* receive mental health services				
Parents/guardians/siblings/other relatives	0	4	96	0.85
Physician/therapist	0	12	88	0.75
Faith leader	4	24	72	0.77
Responsible party to ensure *college students* receive mental health services				
College student counseling center	0	12	88	0.77

Note: Percentage of participants by response category and consensus score ($n = 25$).

Among round 2 responses, experts agreed on the following applications of technology to supplement therapy: follow-up on therapy-related assignments, enhance medication adherence, emotional support, questions for therapist between sessions, and appointment reminders (See Table 2). Meanwhile, in open-ended responses, panel members identified TMH as convenient for continuous access at all times of day and night. A mental health professional indicated in an open-ended response:

"24-hour responses to crisis situations, this age group may be comfortable send texts/talking later at night when negative thoughts occur before sleep."

The benefits of TMH delivery methods are displayed in Table 3. Notably, experts did not consistently indicate that it is easier for youth to share emotions ("open up") via technology for any of the TMH delivery methods assessed. Additionally, across TMH delivery methods, the inability to observe nonverbal communication was viewed as a drawback (for online chat, websites, social media, and text messaging). Experts viewed technological problems as a drawback to video conferencing and computer literacy/computer access problems as a drawback to websites. Experts did not reach consensus on which TMH delivery method would be most beneficial and with the least drawbacks for youth.

In open-ended responses, many panel members expressed that the usefulness of TMH services would depend on the youth and the situation. For example:

"I am not sure if video conferencing will help my client open up more, but I suppose it just depends on the personality of the client."

"(TMH services could be) helpful for people uncomfortable with face to face communication."

"Impacts youth who live in poverty with no computer or internet service."

See Appendix A for additional responses related to each technology.

By Round 3, experts agreed that TMH could help youth who are not engaged with traditional face-to-face mental health in the following ways: education (100%), emotional support (92%), and screening (88%, see Table 4). Additionally, experts indicated that mental health care could be supported by technology for the following components: education (100%), emotional support (100%), self-tracking (100%), screening (96%), and monitoring progress (92%). However, experts did not reach consensus on using TMH tools for crisis support (either in favor or opposed; consensus = 0.52 for crisis support with youth not receiving care, consensus = 0.61 for crisis support with youth receiving care). Most experts were open to using technology to supplement traditional, face-to-face therapy (88%) and planned to use TMH tools in the future with youth (75%).

DISCUSSION

Youth engagement with TMH resources will depend, at least partially, on buy-in from adult stakeholders who develop, recommend, and administer these mental health technologies. Through an iterative Delphi process, youth mental health experts, including professionals and those with lived experience of youth mental health issues, identified various benefits and barriers to TMH for youth.

Most experts agreed that stigma is a primary barrier to youth accessing mental health services. Unfortunately, previous research has shown that parents' perceptions of stigma are associated with less willingness to seek services for their children[27]; therefore, this overarching stigma may affect uptake of mental health services, generally, and TMH technologies, specifically. More importantly, although our experts acknowledged stigma as a barrier to mental health treatment, they did not reach consensus that TMH overcomes stigma. Hence, at least from the viewpoint of adult experts, TMH does not abolish this significant barrier to youth mental health treatment.

Poor knowledge about obtaining services was also viewed as a barrier to youth mental health treatment. These findings are consistent with other research indicating there are pragmatic barriers that prevent youth from receiving services.[28–31] However, the majority of our panel members were familiar with TMH, and 32% had used TMH, suggesting that TMH is gaining popularity among adult stakeholders. Future education and marketing efforts concerning TMH for youth should be targeted towards family members, peers, therapists, faith leaders, and college counseling centers, parties deemed by our experts as responsible for connecting youth to mental health resources. Health care organizations may be the ideal vehicle

Table 2. Round 2 expert consensus: benefits of telemental health for youth ages 14–24 years

	Strongly disagree or disagree %	Neutral %	Agree or strongly agree %	Consensus
Benefit of technology supplementing in-person therapy				
Follow-up on therapy-related assignments	0	4	96	0.80
Enhance medication adherence through messages, reminders, and education	0	8	92	0.77
Emotional support/encouragement	0	8	92	0.79
Ask therapist questions between sessions	4	0	96	0.77
Appointment reminders	0	0	100	0.97

Note: Percentage of participants by response category and consensus score ($n = 24$).

Table 3. Round 2 expert consensus (consensus > 0.75): benefits of TMH delivery methods for youth ages 14–24 years

Benefit	Beneficial TMH delivery methods	Assessed for benefit but no consensus that TMH method provides benefit
Improved access to mental health care	Video conference, Online chat/Instant Message, Mobile apps, Text messaging	Websites, Social media, Wearable technologies
Easier to open up via technology (vs face-to-face)	No consensus	Video conference, Online chat/Instant Message, Mobile apps, Websites, Text messaging, Wearable technologies
Emotional/social support	No consensus	Video conference, social media, text messaging
Youth familiarity for technology-based communication	Online chat/Instant Message, Mobile apps, Social media, Text messaging, Wearable technologies	Websites
Quick response	Online chat/Instant Message, Text messaging	Mobile apps, Websites, Social media, Wearable technologies
Anonymity	No consensus	Online chat/Instant Message, Mobile apps
Convenience	Online chat/Instant Message, Mobile apps, Wearable technologies	Websites
Educational/raise awareness	Websites, Social media	Mobile apps, Text messaging
Early intervention tool	No consensus	Websites
Motivational	No consensus	Text messaging, Wearable technologies
Addresses stigma	Video conference	

Note: Not all TMH technologies were assessed for each benefit ($n = 24$).

for such promotion, as they have connections in the community and monetary resources for large-scale health education initiatives. Health care organizations are also in a prime position to provide support to rural health practitioners for implementation and use of TMH in their practice, which could be particularly helpful in overcoming access barriers for rural youth.[32] Within the health care system, TMH education could entail workshops or conferences, but it might also be provided through secure messaging via patient portals in primary care/pediatric offices. Future research should explore the effectiveness of these alternate avenues for TMH education within different populations.

With regard to benefits, experts were in agreement that TMH technologies could be helpful for certain aspects of mental health treatment, such as appointment and medication reminders, connecting with therapists and completing follow-up work between sessions, and emotional support. Moreover, experts regard TMH as useful for education and screening, agreeing that TMH could be used as a supplement to traditional, face-to-face therapy. However, notably, there was no consensus on crisis management, which emphasizes that although adult experts see potential uses for TMH technology, they have not yet fully embraced TMH as a critical treatment mechanism. As comprehensive reviews on youth TMH

are quite recent,[14–16] it may take some time for the positive reviews of TMH and accompanying guidelines to percolate through the health care system to clinicians and consumers. However, there also needs to be more focus on whether TMH is suitable for acute care, as experts' opinions on it are clearly divided.

Telemental health is delivered through a variety of methods, from websites, to apps, to videoconferencing; additionally, gaming and virtual reality are being explored as potential delivery modalities.[17] From an informatics standpoint, we expected that experts' feedback on delivery methods might prove most useful for TMH development. However, unfortunately, there was no one modality that was endorsed universally as having beneficial features. Instead, benefits depended on the medium. For example, experts were in agreement that online chat/instant messaging provided benefits in terms of improved access, convenience, improved access, and youth familiarity with the modality. However, wearable technologies were cited as beneficial only in terms of familiarity and convenience. These findings have at least 2 general, practical implications. First, just as there is no one-size-fits-all approach to face-to-face therapy, likewise, there does not seem to be a single solution for TMH for youth. Consequently, developers should think creatively, remaining open to the benefits and barriers of different delivery methods, and

Table 4. Round 3 expert consensus: telemental health uses, comfort, and openness to using telemental health, pathways to telemental health for youth ages 14–24 years

Question	Strongly disagree or disagree %	Neutral %	Agree or strongly agree %	Consensus
Technology uses for youth not seeking mental health care				
Education; Information	0	0	100	0.83
Emotional support; encouragement	0	8	92	0.80
Screening (for depression, anxiety, substance abuse)	0	13	88	0.79
Mental health care components potentially supported by technology				
Education; information	0	0	100	0.86
Emotional support; encouragement	0	0	100	0.81
Self-tracking (behaviors, mood, symptoms, feelings)	0	0	100	0.81
Screening (for depression, anxiety, substance abuse)	0	4	96	0.79
Monitoring progress; giving feedback, support	0	8	92	0.78
Effective way to connect youth to mental health resources				
Parents	0	0	100	0.81
Friends	0	12	88	0.75
Grandparents	4	4	92	0.78
Siblings	0	37	63	0.76
Aunts/uncles	0	17	83	0.79

Note: Percentage of participants by response category and consensus score ($n = 24$).

developing alternative mechanisms for addressing different types of mental health problems within different populations. Ideally, a centralized platform of available TMH technologies (ie a TMH toolkit for providers) would be created that highlights the different features of each TMH tool, which providers, school officials, parents, and peers could draw from as needed. Second, as technology changes rapidly, developers must be mindful that today's familiar and convenient technologies may soon be passé. Thus, adaptability in this market is critical, and health care delivery systems must find a mechanism to help embedded mental health care providers be attuned to shifts in new technology offerings that are appealing to youth.

The present study has a number of limitations, primarily the limited sample size and the lack of youths' perspectives to corroborate results. Additionally, the sample was mostly Caucasian and female, recruited from one state in the United States, which may limit the generalizability of the findings to other demographic and geographic areas. That said, the Delphi method was successful in soliciting a consensus view from adult experts, an exploratory approach that can lay the groundwork for surveys, focus groups, and additional Delphi panels with larger, more demographically diverse samples, including youth. Specifically, future studies should examine the extent to which adults and youth share similar views of TMH benefits and drawbacks in order to understand how barriers may be created or overcome with technology. Further, as adults are often the gatekeepers to youth mental health care, it will be important to develop educational programs and/or advertisements to bridge any disparate perceptions of TMH among adults and youth.

CONCLUSION

Our Delphi approach showed that adult experts in youth mental health (ie those with lived experience with youth mental health issues and mental health professionals) perceive significant barriers to youth accessing mental health services. Unfortunately, they did not view TMH as a panacea to those barriers. Instead, the majority of these adult experts regarded TMH as beneficial for mental health screening, education, and support, but there was no single TMH delivery method that was universally endorsed. Further, although adult experts expressed openness to using TMH with youth, they were not in agreement about the use of TMH in crisis management, which exemplifies an oft-overlooked stigma that plagues mental health care—that online therapies are not as effective as face-to-face treatment. As TMH research with youth populations continues to emerge, parents, therapists, and youth must remain open to the ever-shifting landscape of mental health care and the possibilities that TMH may provide. Moreover, health care information technologists must be at the forefront of these shifts, providing the research and tools that these stakeholders need to make informed decisions about which TMH technologies are best suited for youth with various mental health care needs.

CONTRIBUTORS

Tammy Toscos, Maria Carpenter, Elizabeth Chen, and Catherine Duchovic helped to design and conduct this study. Abigail Howard, Mindy Flanagan, and Michelle Drouin analyzed and interpreted the data and wrote the manuscript with input from all authors. Tammy Toscos was in charge of overall direction and planning of the project. Additionally, all authors drafted or revised this manuscript critically for important intellectual content, approved the version to be published, and agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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APPENDIX

Appendix A. Quotes from experts about the benefits of online chat, mobile apps, and video conferencing in TMH for youth

Delivery method	Benefits
Online Chat	• "Current method of communicating with this population" • "This can be beneficial if the client is needing to speak to someone immediately and unable to get to the office to see the therapist or is in a situation where this is their only option" • "Instant feedback any time you want it" • "no need for transportation, easier access, user friendly for age group" • "more comfortable for less verbal clients…clients who may process more slowly and be able to think before they write out their responses"
Mobile Apps	• "since people are using apps for other areas of their lives, this would seem to be a natural next step for mental health help" • "apps are on phone, and most youth always have their phones on them, so services could always be available" • "ability to take interventions with them wherever they go, privacy to look at them without people knowing they are looking at coping information"
Video Conferencing	• "ability to talk to someone face to face regardless of transportation" • "In areas where there aren't adequate mental health services this option would be beneficial for people who would otherwise not have the ability to see a therapist in person" • "Convenient, no transportation needed, ideally lower cost, ideally can have more schedule options" • "No need for transportation, (video conferencing) can reach those with social anxiety in comfortable setting"

Appendix B. Table of demographic characteristics of expert panel members

	Adults with lived experience (n = 5)	Parents of teens with lived experience (n = 4)	Mental health researchers (n = 5)	Mental health clinicians and those who work at mental health organizations (n = 6)	Educators who work with teens/ young adults (n = 5)	Total (n = 25)
Gender						
Male	20.0% (1)	25.0% (1)	0.0% (0)	16.7% (1)	20.0% (1)	16.0% (4)
Female	80.0% (4)	75.0% (3)	100.0% (5)	83.3% (5)	80.0% (4)	84.0% (21)
Age						
24–34	20.0% (1)	75.0% (3)	0.0% (0)	33.3% (2)	20.0% (1)	28.0% (7)
35–49	20.0% (1)	0.0% (0)	60.0% (3)	33.3% (2)	40.0% (2)	32.0% (8)
50–64	60.0% (3)	25.0% (1)	40.0% (2)	33.3% (2)	40.0% (2)	40.0% (10)
Race						
White	80.0% (4)	100.0% (4)	100.0% (5)	100.0% (6)	80.0% (4)	92.0% (23)
Latino	20.0% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	4.0% (1)
Multi-Racial	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	20.0% (1)	4.0% (1)
Familiarity with telemental health						
Yes	80.0% (4)	25.0% (1)	80.0% (4)	33.3% (2)	60.0% (3)	56.0% (14)
No	20.0% (1)	75.0% (3)	20.0% (1)	66.7% (4)	40.0% (2)	44.0% (11)
Use of telemental health						
Yes	40.0% (2)	25.0% (1)	0.0% (0)	50.0% (3)	40.0% (2)	32.0% (8)
No	60.0% (3)	75.0% (3)	100.0% (5)	50.0% (3)	60.0% (3)	68.0% (17)