

Using Videoconferencing to Deliver Individual Therapy and Pediatric Psychology Interventions with Children and Adolescents

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Abstract

Background: Because of the widening access gap between need for individual and pediatric psychology services and child specialist availability, secure videoconferencing options are more needed than ever to address access challenges across underserved settings.

Methods: The authors summarize real-time videoconferencing evidence to date across individual therapy with children and pediatric psychology interventions using videoconferencing. The authors summarize emerging guidelines that inform best practices for individual child therapy over videoconferencing.

Results: The authors present three case examples to illustrate best practices. The first behavioral pediatrics case summarizes evidence-based approaches in treating a rural young adolescent with attention-deficit/hyperactivity disorder (ADHD), oppositional defiant disorder (ODD), and hearing impairment. The second pediatric psychology case describes similarities and difference between on-site and videoconferencing services in treating a rural child with toileting concerns. The third adolescent case describes treatment of an urban honors student with depression.

Conclusions: Videoconferencing is an effective approach to improving access to individual and pediatric psychology interventions for children and adolescents. Videoconferencing approaches are well accepted by families and show promise for disseminating evidence-based treatments to underserved communities.

Introduction

APPROXIMATELY 20% OF UNITED STATES CHILDREN and adolescents, ages 9–17, have diagnosable psychiatric disorders (Centers for Disease Control and Prevention 2013). In addition, ~31% of children and adolescents are affected by chronic conditions (Newacheck and Taylor 1992). Fortunately, there are a growing number of evidence-based psychotherapy approaches to support children, adolescents, and their families in coping with the range of psychiatric presentations (Weisz and Kazdin 2010), as well as pediatric psychology approaches for supporting those with acute and chronic medical conditions and their families (Roberts et al. 2014).

However, the supply of therapists trained in the latest clinical advances is very small, with demand far outpacing supply (Hyde 2013). The vast majority of children and adolescents with behavioral health concerns do not receive any therapy, let alone evidence-based treatments delivered by behavioral health specialists (Merikangas et al. 2011). The rationale for telemental health is to bridge the gap between supply and demand, particularly in rural and other underserved communities that face declining economies, poor access to mental health insurance, and limited transportation options (Smalley et al. 2012; Comer and Barlow 2014). Telemental health helps in-

crease regular attendance at individual therapy sessions by diminishing the financial and temporal barriers of travel and time from work, as well as offering access to a therapist outside of the community via health clinics and schools, which may be less stigmatizing than traditional mental health settings. The authors first summarize the limited pediatric research to date related to individual therapy and pediatric psychology interventions using videoconferencing (see also Slone et al. 2012). Underscoring ethical considerations, the authors then present three telemental health cases.

Summary of Evidence

Studies were included if they: 1) Consisted of videoconferencing applications across the pediatric age range, 2) included individual psychotherapy and/or a pediatric psychology intervention, and 3) included videoconferencing as the method of intervention. Studies were excluded if they: 1) Were conducted using telephone or mobile interactions without video, 2) used web-based or e-health interventions as a primary method for service delivery (i.e., predominantly asynchronous web-delivered content), and/or 3) focused solely on education/training or population description. These criteria were established in a previous review (Van Allen et al. 2011).

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In Table 1, the authors summarize the handful of studies that have addressed individual child therapies using videoconferencing (Glueckauf et al. 2002; Nelson et al. 2006; Bensink et al. 2008; Clawson et al. 2008; Fox et al. 2008; Morgan et al. 2008; Shaikh et al. 2008; Wilkinson et al. 2008; Witmans et al. 2008; Mulgrew et al. 2011; Storch et al. 2011; Himle et al. 2012; Nelson et al. 2012b; Reese et al. 2012; Banitt et al. 2013; Davis et al. 2013; Freeman et al. 2013; Heitzman–Powell et al. 2014; Hommel et al. 2013; Lipana et al. 2013; Xie et al. 2013; Comer et al. 2014; Tse et al. 2015). Most studies are interventions for attention-deficit/hyperactivity disorder (ADHD), but also include a variety of single study examples. Interventions approaches varied from focus on the youth or the parent and ranged from feasibility trials to pre-post designs, and a handful of randomized controlled trials. Consistent with the more robust adult individual therapy literature, findings were overall positive related to feasibility, satisfaction, and outcome (Gros et al. 2013; Hilty et al. 2013).

The authors also summarize pediatric psychology interventions using videoconferencing in Table 1. Studies spanned a wide range of chronic and acute childhood illnesses and used multiple pediatric psychology interventions, such as cognitive-behavioral strategies to promote coping and strategies to enhance treatment adherence. As with individual therapies, findings were overall positive for feasibility, satisfaction, and outcome, although definitive statements are difficult in light of limited number of studies, small sample sizes, and limited replication.

Best Practices Using Videoconferencing

Most individual therapy and pediatric psychology interventions using videoconferencing aim to approximate the same high quality services as those offered in the face-to-face setting. However, ethical considerations are magnified in the telemedicine setting because of its focus on reaching underserved and vulnerable populations. Therefore, just as in on-site clinical settings, therapists must look toward their professional ethics codes for guidance, and the core ethical concern to *protect the client* remains paramount (Nelson et al. 2012a). Guidelines are emerging to inform “reasonable steps” for videoconferencing-based practice across clinical, administrative, and technical considerations. These includes guidelines from the American Psychological Association (2013), the American Telemedicine Association (Grady et al. 2011), National Association of Social Workers and Association of Social Work Boards (2005), the National Board for Certified Counselors (2012), and the Ohio Psychological Association Communications and Technology Committee (2009), among others.

Therapists are encouraged to seek ongoing training and mentorship to develop and maintain telemental health competencies, with careful consideration of clinical, technical, community engagement, and cultural competencies (Ohio Psychological Association 2012). To better illustrate best practices, the authors have incorporated ethical approaches within the three case studies discussed. In these instances, the therapists are PhD-level psychologists with extensive training in evidence-based individual therapy and pediatric psychology approaches.

Case Example 1: Rural Clinic Example

The authors first present a behavioral pediatrics case that illustrates key similarities and differences between face-to-face and videoconferencing practice. The case example includes: Presentation, Technology and Setting, Initial Session, Abbreviated History and Case Formulation, Assessment, Treatment, and Outcome.

Presentation

“Emily” was a 14-year-old female referred to the therapist by her rural primary care provider and telepsychiatrist. She presented to the rural clinic with her relative/guardian “Kathy” with whom she had lived since she was 3 years of age. Presenting concerns included: Attention problems, argumentative behaviors at home and at school, and decline in school performance. In addition to having had a hearing impairment since birth, Emily had been diagnosed with ADHD and oppositional defiant disorder (ODD) by her telepsychiatrist.

The family was given options for individual therapy: To see a local therapist, although there were no child-trained psychologists within their region; to see the specialist in person at the academic health center; or to use videoconferencing. The telemental health option was appealing because of convenience, and decreased family costs related to travel. The availability of services at the hospital through telemental health was particularly appealing as it was relatively free of the stigma or concern of being identified by other community members as visiting the “mental health center.”

The telemedicine nurse coordinator is the site champion at the rural hospital. As such, she is competent in the telemedicine technology, the administrative expectations around confidentiality, and child behavioral health. She had completed training around both the telemedicine and the mental health components of the clinic (American Telemedicine Association 2013). Before the appointment, she explained to Emily and her family what to expect in the telemental health visit and helped the family complete the paperwork, including consent to treatment, registration form, insurance information, Health Information Portability and Accountability Act (HIPAA)-related Notice of Privacy, history intake form, and the behavioral questionnaires. Although the coordinator does not stay in the therapy room during the session, she is available to assist the family throughout the telemental health encounter, particularly in the event that there are any technical difficulties or emergent clinical concerns such as suicidal intent. She also helps with room management, including directing nonparticipating family members to the waiting room.

Technology and setting

Emily was seen over secure videoconferencing, connecting the child psychologist at the academic health center with the hospital clinic in a small frontier community. Coordination across client/family, rural site, and provider schedules across time zones was accomplished through the telemedicine office’s scheduler. In this setting, standards-based videoconferencing systems were utilized on both sides using H.323 protocols. The hub/provider site utilized a large room-based videoconferencing system using high speed fiber connections, and the spoke/rural site utilized a room-based videoconferencing system over cable modem, with connection speed limited by this lower bandwidth. Although technical difficulties were minor and solved by rebooting the system, the provider and the rural sites benefited from having a readily accessible, consumer-focused technician to support sessions.

The videoconferencing ability to zoom in on the therapist’s face had a unique advantage to assist Emily’s lip reading. Likewise, the therapist could zoom in on the patient to understand her speech and note motor functioning and affect. The quiet, private clinic space was large enough to accommodate both Emily and family members. A fax machine was close to the therapy room in order to exchange questionnaires, handouts, and therapy activities. The camera was placed strategically to see Emily seated at a small table in the room, and the lighting allowed the therapist to easily observe facial expressions.

Initial session

Following well-established protocols tailored to each local site, the therapist socialized Emily and her guardian to the videoconferencing system, noting that it might take time to acclimate to the technology and “not talk over each other.” She informed the family that no one else could access the videoconferencing encounter and that the session was not being recorded. With the help of the site coordinator, the therapist explained how the components of the technology worked. The therapist reviewed informed consent components (i.e., confidentiality and its limits regarding safety and abuse), risks and limitations associated with videoconferencing services, documentation procedures, and patient responsibilities regarding attendance and payment. As established ahead of time, the telephone was used as a backup in the rare event that the videoconferencing did not connect. Attention was given to rapport building, including discussions of Emily’s favorite music groups and activities with her friends.

Abbreviated history

Kathy reported that other than having a hearing impairment and speech delays, Emily had been a “really healthy kid” throughout pregnancy, birth/delivery, and development. At age 9, Emily had received Cochlear implants. She had been receiving ongoing speech therapy at school through her Individualized Education Plan (IEP). Kathy described that off of medicines, Emily exhibited several ADHD symptoms, including difficulty sitting still, fidgeting, impulsiveness, forgetfulness, and disorganization. She has forgotten to turn in homework, resulting in receiving grades of mostly Ds and Fs in the current school year. In addition, Emily argued at home and at school. Emily readily answered questions over the videoconferencing system and described herself as happy overall despite having few friends, reported no safety concerns, but acknowledged often “losing her temper” when she didn’t get her way.

Assessment and case formulation

Emily scored in the clinical range on the Vanderbilt Parent and Teacher Assessment Scales for ADHD and for ODD behaviors (Jellinek et al. 2002), which was also consistent with guardian and school report.

Treatment

Treatment followed best practices in ADHD and ODD management (Pelham and Fabiano 2008), including therapy time spent together with child and guardian, as well as time spent individually with the child and with the guardian, all with the focus on Emily’s behaviors. The focus of the therapy was the individual child (Emily), with the family as a team in this process. Emily initially attempted to whisper answers to her guardian, rather than answering directly. Reinforcement was modeled within the therapy session, praising Emily for answering for herself and shaping this behavior over time. As in face-to-face settings, individual time with Emily focused on anger management strategies and social skills training. She was very engaged in role playing scenarios over videoconferencing, particularly practicing steps on how to make friends and how to think through “walking away when she’s mad.” Emily responded especially well to reinforcing nonargumentative behaviors in session. All cognitive-behavioral strategies were able to be implemented using videoconferencing, with an emphasis on homework and applying skills at home. The therapist assisted with parent-child communication strategies and setting clear con-

tingencies in the household, with videoconferencing lending itself to coaching the guardian to engage in strategies rather than completing tasks for the parent. In addition, the therapist worked closely with Emily’s primary care provider and telepsychiatrist to support adherence to her psychostimulant regimen.

Outcome

Emily was seen for four sessions over the spring school semester and summer. Her guardian’s ratings on the Vanderbilt Rating Scales have improved and both Emily and her guardian report decreased family conflict around arguing. The teacher’s rating scales will be repeated as the next school year progresses. In addition, we will work with school personnel to use videoconferencing to connect the therapist to the IEP meeting for the next year in order to work together to monitor behavioral symptoms and their associated impact on Emily’s academic functioning.

Case Example 2: Pediatric Psychology Example

Following the same format as the previous case example, the authors present a case illustrating an evidence-based toileting intervention. The authors again focus on similarities and differences between face-to-face and videoconferencing practice.

Presentation

“Ken” is a 9-year-old boy referred to the therapist by his school nurse. He presented to the clinic in the company of his grandmother/guardian, “Charlene,” and father, “Derek.” In addition, the family invited the school nurse and Ken’s teacher to attend the first appointment. The presenting concerns were daily accidents for both urine and stool while at home and at school. Ken had been previously evaluated by a pediatric gastroenterologist, who diagnosed him with functional constipation and started on him on medications (17 g polyethylene glycol 3350 daily, stimulant laxative as needed). However, this physician practiced at an academic medical center that was over a 5 hour drive from the family’s home town, preventing the family from continuing treatment with this provider. At the time of the first telemedicine appointment, it had been ~7 months since Ken’s visit to the pediatric gastroenterologist. Although he was continuing to follow his medication regimen, he was still having daily soiling accidents. Also, Ken needed an increasingly larger dose of the stimulant laxative to pass a stool in the toilet, suggesting possible overuse of this medication.

Technology and setting

Ken was seen using secure videoconferencing connecting the child psychologist at the academic health center/hub site with the rural school/spoke site. Computer-based videoconferencing was utilized by both the provider and the client sites, with the provider site utilizing high-speed fiber connections and the school site utilizing digital subscriber line (DSL) for connectivity. The convenience of the computer-based system right at their desk is appealing to many providers, particularly in the event of cancellations. A fax machine located in the school was used to send completed toileting accident charts to the therapist.

Abbreviated history

No difficulties were noted in Charlene’s ability to share history over the videoconferencing system. She reported that Ken’s family lived with her and that she provided most of the care to Ken and his

TABLE 1. INDIVIDUAL THERAPY AND PEDIATRIC PSYCHOLOGY INTERVENTION USING VIDEOCONFERENCING

<i>Study</i>	<i>Population</i>	<i>Sample description & sample size</i>	<i>Study design</i>	<i>Findings</i>
<i>Individual therapy using videoconferencing</i>				
Comer et al. (2014)	Early OCD	n = 5 youth Age: 4–8 years	VC Pre-Post	Child OCD symptoms and diagnoses declined; child global functioning improved.
Fox et al. (2008)	Juvenile offenders	n = 190 youth Age: 12–19 years	VC Pre-Post	Youth increased goal achievement in areas of health, family, and social skills.
Heitzman Powell et al. (2014)	Autism	n = 7 parents Youth age not reported	VC Pre-Post	Parents increased their knowledge and self-reported implementation of behavioral strategies.
Himle et al. (2012)	Tic disorders	n = 18 youth Age: 8–17 years	RCT, VC vs. F2F	Across groups, there were significant improvements in tic behaviors and strong ratings for acceptability and therapist/client alliance, and no differences between treatment groups.
Tse et al. (2015)	ADHD	n = 37 youth M (Teletherapy) = 9.15 years M (F2F) = 9.39 years	Substudy of larger clinical trial, VC vs. F2F	Families in the two caregiver training conditions showed comparable attendance at sessions and satisfaction with their care. Caregivers in both conditions reported comparable outcomes for their children's ADHD-related behaviors and functioning, but caregivers in the teletherapy group did not report improvement in their own distress.
Nelson et al. (2006)	Depression	n = 28 youth M = 10.3 years	RCT, VC vs. F2F	Treatment yielded significant improvement for depression in both conditions, with no between-group differences.
Nelson et al. (2012)	ADHD	n = 22 youth M = 9.3 years	VC Feasibility	No factor inherent to the VC delivery mechanism impeded adherence to national ADHD guidelines.
Reese et al. (2012)	ADHD	n = 8 youth M = 7.6 years	VC Pre-Post	Using Group Triple P Positive Parenting Program over VC, families reported improved child behavior and decreased parent distress.
Storch et al. (2011)	OCD	n = 31 youth Age: 7–16 years M = 11.1 years	Waitlist control, VC vs. F2F	VC was superior to F2F on all primary outcome measures, with a significantly higher percent of individuals in the VC group than in the F2F group meeting remission criteria.
Xie et al. (2013)	ADHD	n = 22 parents Child M = 10.4 years	RCT, VC vs. F2F	Parent training via VC showed same degree of improvement in disciplinary practices, ADHD symptoms, and overall functioning as F2F.
<i>Pediatric psychology intervention using videoconferencing</i>				
Bensink et al. (2008)	Pediatric cancer	n = 8 youth not reported	VC Feasibility	Using VC over videophone to families with a child diagnosed with cancer, the study noted technical feasibility and high parental satisfaction.
Clawson et al. (2008)	Pediatric feeding disorders	n = 15 youth Age: 8 months	VC Feasibility	VC was feasible with the pediatric feeding disorder population and resulted in cost savings.

(continued)

TABLE 1. (CONTINUED)

<i>Study</i>	<i>Population</i>	<i>Sample description & sample size</i>	<i>Study design</i>	<i>Findings</i>
Davis et al. (2013)	Pediatric obesity	to 10 years old n = 58 youth Age: 5–11 years M = 8.6 years	RCT, VC vs. F2F physician visits	Both groups showed improvements in BMI z score, nutrition, and physical activity, and the groups did not differ significantly on primary outcomes.
Freeman et al. (2013)	Diabetes adherence	n = 71 youth VC M = 15.2 years F2F M = 14.9 years	RCT, VC vs. F2F	No differences were found in therapeutic alliance between the groups.
Glueckauf et al. (2002)	Pediatric epilepsy	n = 22 (Youth) M = 15.4 yrs	RCT, VC, F2F, and telephone	All groups improved in psychosocial problem severity and frequency and child prosocial behavior, with no significant differences across groups. No differences in adherence between the groups were noted.
Hommel et al. (2013)	IBD, adherence	n = 9 youth M = 13.7 years	VC Pre-Post	The VC approach resulted in improved adherence and cost savings across patients.
Lipana et al. (2013)	Pediatric obesity	n = 243 youth M = 11 years	Pre-Post, VC and F2F	Using a nonrandomized design, the VC group demonstrated more improvement than the F2F group in enhancing nutrition, increasing activity, and decreasing screen time.
Morgan et al. (2008)	Congenital heart disease	n = 27 parents Child age: 0–25 months	RCT, VC and telephone	The VC approach decreased parent anxiety significantly more than the phone, and resulted in significantly greater clinical information.
Mulgrew et al. (2011)	Pediatric obesity	n = 25 youth Age: 4–11 years	VC Feasibility	No significant difference in parent satisfaction between consultations for weight management delivered by VC or F2F.
Shaikh et al. (2008)	Pediatric obesity	n = 99 youth Age: 1–17 years	VC Pre-Post	VC consultations resulted in substantial changes/additions to diagnoses. For a subset of patients, repeated VC consultations led to improved health behaviors, weight maintenance, and/or weight loss.
Wilkinson et al. (2008)	Cystic fibrosis	n = 16 youth Not reported	RCT, Videophone vs. F2F	No significant differences in quality of life, anxiety levels, depression levels, admissions to hospital or clinic attendances, general practitioner calls or intravenous antibiotic use between the two groups.
Witmans et al. (2008)	Sleep disorders	n = 89 Age: 1–18 years	VC Feasibility	Patients were very satisfied with the delivery of multidisciplinary pediatric sleep medicine services over VC.

OCD, obsessive-compulsive disorder; VC, videoconferencing; F2F, face to face; ADHD, attention-deficit/hyperactivity disorder; RCT, randomized controlled trial; M, mean; BMI, body mass index.

two younger siblings. Charlene reported that Ken was born full term. He was delayed in achieving all early developmental milestones and was later diagnosed with mild to moderate mental retardation by his school district. Ken was receiving special education services at school through an IEP. Charlene reported that Ken had had problems with daytime urine and stool accidents for many years, which she attributed to the fact that “he never fully toilet trained.” She reported that there was no family history of constipation.

Initial session

Using videoconferencing protocols, the therapist introduced the videoconferencing system and confirmed that the caregivers were comfortable having school personnel present for the sessions. Ken’s legal guardian signed a release of information to allow the therapist to communicate with Ken’s school, with some school personnel engaged in helping Ken and some seeking his transfer to another school. School personnel could not have participated as closely had the family travelled to the academic health center. The remainder of the session was used to build rapport, obtain a history, and provide patient education. Ken’s cognitive limitations did not present difficulties to interacting over the videoconferencing system, and he readily answered questions and engaged with the therapist. The therapist did rely on his family members and school personnel to help redirect him when he lost focus and to minimize distractors in the room during the videoconferencing visit. Similarly, Ken’s elder guardian quickly accommodated to the videoconferencing setting with the additional encryption, particularly as she had previously used publically available online videoconferencing to socially interact with other grandchildren living out of state.

Assessment and case formulation

Ken was having nearly continuous stool accidents during the daytime and also urine accidents. Many of these accidents were large enough to soak through his underwear and pants causing Ken’s school to become concerned that he could contaminate other students. Ken’s pattern for accidents at school was also occurring at home. Charlene readily shared her concerns about the previous assessment, particularly a misunderstanding concerning how Ken could have functional constipation when he is having nearly continuous accidents for stool and urine. This allowed the therapist to provide additional psychoeducation over videoconferencing and further explain the diagnostic criteria for functional encopresis and enuresis.

Treatment

Treatment followed best practices in functional encopresis and enuresis management (Felt et al. 2008; Nevés 2011), with the individual child as the focus of therapy. As in face-to-face settings, therapy focused on patient education, dietary management, behavioral strategies, and medication management. In addition to ongoing attention to rapport building strategies, the structured approach fit well with the school-based videoconferencing setting. Patient education was initially complicated by videoconferencing. Instead of the preferred method of drawing a picture to help families understand constipation and soiling, the therapist faxed the picture to Ken’s school and provided a brief written summary of her main points. The therapist was able to teach and implement dietary changes over videoconferencing using handouts and homework assignments. Newer videoconferencing systems allow simultaneous dual stream of video and educational content, which will assist with this concern in the future.

Similarly, all behavioral strategies were amenable to videoconferencing. The therapist taught Ken’s family and school personnel how to use self-monitoring, goal setting, and contingency management to shape age-appropriate toileting behavior. Finally, the therapist worked with the pediatric gastroenterologist to adjust Ken’s medications (Reiner 2008). Medication changes were directly communicated with Charlene by telephone after videoconferencing sessions. This unfortunately created a delay in implementing medication changes, which would not have occurred in an on-site appointment at which the therapist and the pediatric gastroenterologist would have been in the same physical location.

Outcome

Ken was seen for six sessions over 8 months. During session six, Ken’s school returned a stool record that was remarkable for nearly daily stooling in the toilet, multiple times urinating in the toilet each day, and only five accidents over a 30 day period. Charlene similarly reported more regular use of the toilet and a decrease in accidents when Ken was at home. The therapist will continue to work with Ken, his family, and his school team using videoconferencing during the next school year to monitor his progress in treatment.

Case Example 3: Urban Example

Presentation

“Alan” was a 17-year-old junior referred to the telemedicine clinic by his urban high school, a well-established telemedicine site for over a decade. Alan had recently seen a drop in his grades and was suspended from school for fighting. He was highly motivated to seek strategies to assist him in keeping on his academic and student-athlete track for college. His mother attended the intake visit in person and because of her work schedule, was available for subsequent visits by telephone. Despite being geographically close to the academic health center, the family felt more comfortable meeting over videoconferencing with the school nurse whom they had trusted over time and having her support, as they were new to mental health services. They also faced challenges to coming to the academic health center, including lack of reliable transportation, difficulties securing time from work and school/athletics, and childcare for younger siblings.

Technology and setting

Alan was seen using secure cloud-based videoconferencing connecting the child psychologist at the academic health center with the urban school site. The HIPAA-compliant hosting service provides licenses to the hub and spoke sites, with participants connected through a virtual meeting room. The school site utilized an iPad for videoconferencing, using a data plan rather than WiFi in order to support consistent connectivity. The therapist utilized a computer for videoconferencing, using high speed fiber connections.

Assessment/intake

The intake session over videoconferencing connected the school nurse’s office with the therapist at the academic health center. The session was attended by Alan and his mother, and with their consent, his teacher and the school nurse. Alan and his mother had completed the intake packet, including history and behavioral questionnaires, ahead of the session. The school perspective was especially important, as the school emphasized how much Alan had

changed from the year before and the current year, including increased irritability and distractibility. Much of the session focused on constructive communication among the client, parent, and school that had not taken place previously. In addition, the client and parent disclosed a significant change in their living environment, with both now living with a grandparent because of leaving their home because of interpersonal violence between his mother and her boyfriend, which Alan had witnessed. Although he did not meet the full criteria of posttraumatic stress disorder (PTSD), coping with anxiety symptoms remained a focus of therapy. Based on interview and intake questionnaires, Alan was diagnosed with a major depressive disorder. Alan reported that he had had suicidal ideation in the past, but no current ideation or plan; he readily agreed to a safety plan over videoconferencing supported by his mother and school nurse.

Treatment

Individual therapy with Alan focused on reinforcing and re-engaging his many natural coping skills, as well as building additional cognitive-behavior therapy (CBT) skills (Nelson et al. 2006). The videoconferencing sessions allowed interaction between Alan and school personnel, which assisted with reinforcing his good choices to walk away from potential fights and identifying a “cool down” place with the safety office, a community leader whom Alan greatly admired. Anger management strategies were easily implemented over videoconferencing, including Alan’s increasing identification of early warning signs that he was getting angry, and using calm down approaches such as deep breathing and adaptive self-talk. Thought monitoring sheets were faxed so that homework could be discussed in session. Alan was very goal driven, repeating frequently that “school is money,” meaning that doing well in classes and school athletics was his path to college and a future legal career. He utilized exercise and his coach’s support as key coping strategies. He readily applied cognitive-behavioral skills to look at situations in more adaptive ways, in order to achieve his goals.

Outcome

After a trusted therapeutic relationship was established, Alan talked about the range of important topics over videoconferencing, including dating and sexuality; worries about his family’s safety and becoming homeless; and worries about college success. It was very important for the therapist to consider the cultural context of Alan’s community and culture, with the African American church and Alan’s faith being very important to his coping with day-to-day stressors, especially stressors that were beyond his immediate control. Later therapy provided anticipatory guidance and support around internal and external pressures as Alan looked toward a full athletic scholarship as his family’s first person to attend college.

Summary from Cases

These case studies illustrate how telemental health services can reduce barriers to treatment and can approximate, or even exceed, face-to-face care in underserved rural and urban sites. Whereas most elements of a visit are the same as those for in-person care, videoconferencing offers both unique advantages and challenges compared with in-person care. In these cases, the therapist was able to ascertain adequate information at the initial visit to assist with a diagnosis and treatment plan. The client and family member quickly acclimated to the therapy environment and good rapport was established. From the therapists’ perspectives, a

major advantage of the videoconferencing system for individual therapy was the increased communication with a range of team participants, including extended family, primary care personnel, and school personnel, and the opportunity for input during assessment, treatment, and treatment maintenance. Adherence to regular follow-up visits was likely enhanced with the convenience of videoconferencing. However, creativity and planning ahead was required in order to share materials and to modify patient education strategies for videoconferencing.

Another advantage was healthcare trainee participation at the academic health center. In the first case, a graduate psychology student assisted throughout the assessment and treatment, and in the second case, a pediatrics resident observed the evaluation. Neither trainee had had prior exposure to working with rural populations, and the telemental health experience helped build outreach competencies and, it is hoped, interest in working with underserved families in the future (Nelson et al. 2011). Finally, these clinics utilize the videoconferencing setup not only to provide therapy services, but also to support staff education about child behavioral health topics. “Lunch-and-learn” and other brief distance education offerings have helped the videoconferencing services grow quickly by helping personnel identify behavioral concerns and develop a positive professional relationship with the therapists.

Conclusions

Because of the widening access gap between the need for individual and pediatric psychology services and child specialist availability, telemental health options are more needed than ever. Although the limited studies to date are encouraging, research is needed to better understand the unique advantages and disadvantages of services using videoconferencing. Research is especially needed in looking at adult models of care for children, including telemental health services in unsupervised settings such as the home (Luxton et al. 2012). Emerging guidelines inform ethical best practices in providing therapy using videoconferencing, with continued emphasis on care based on patient and parents’ preferences, developmental and diagnostic considerations, personnel, and other resources at the remote site, and therapist comfort (Myers et al. 2008).

Clinical Significance

As demonstrated by the evidence tables and case examples, telemental health has great potential to increase access to evidence-based therapy for children and adolescents living in underserved communities.

Disclosures

No competing financial interests exist.

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