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Guidelines

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Expert consensus statement for telepsychiatry and attention-deficit hyperactivity disorder

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Abstract

Changing practice patterns caused by the pandemic have created an urgent need for guidance in prescribing stimulants using telepsychiatry for attention-deficit hyperactivity disorder (ADHD). A notable spike in the prescribing of stimulants accompanied the suspension of the Ryan Haight Act, allowing the prescribing of stimulants without a face-to-face meeting. Competing forces both for and against prescribing ADHD stimulants by telepsychiatry have emerged, requiring guidelines to balance these factors. On the one hand, factors weighing in favor of increasing the availability of treatment for ADHD via telepsychiatry include enhanced access to care, reduction in the large number of untreated cases, and prevention of the known adverse outcomes of untreated ADHD. On the other hand, factors in favor of limiting telepsychiatry for ADHD include mitigating the possibility of exploiting telepsychiatry for profit or for misuse, abuse, and diversion of stimulants. This Expert Consensus Group has developed numerous specific guidelines and advocates for some flexibility in allowing telepsychiatry evaluations and treatment without an in-person evaluation to continue. These guidelines also recognize the need to give greater scrutiny to certain subpopulations, such as young adults without a prior diagnosis or treatment of ADHD who request immediate-release stimulants, which should increase the suspicion of possible medication diversion, misuse, or abuse. In such cases, nonstimulants, controlled-release stimulants, or psychosocial interventions should be prioritized. We encourage the use of outside informants to support the history, the use of rating scales, and having access to a hybrid model of both in-person and remote treatment.

Introduction

The need for guidance for prescribing stimulants by telepsychiatry/telemental health for attention-deficit hyperactivity disorder (ADHD) has suddenly come to the forefront. On the one hand, expanded telepsychiatry services (audio or video conferencing) during the pandemic led to enhanced availability of evaluations and treatment for ADHD accompanied by a spike in the number of prescribed stimulants.[1–3] This development has been widely celebrated by those who champion better access to treatment for ADHD, where it is estimated that less than 1 in 5 children[4] and only 10.9% of symptomatic adults[5] with ADHD receive treatment. On the other hand, as telepsychiatry for ADHD came online, there was also a depletion of stimulant supplies at some pharmacies,[6,9] causing others, especially in law enforcement, to become alarmed that a new opioid-like epidemic was being ignited, possibly by those gaming the system to obtain stimulants for diversion and misuse.[1,7,8] As pandemic-related restrictions have lifted, federal policies for reimbursement, technology, and requirements for in-person visits are being debated, revised, and challenged with competing factions arguing either for or against continued easy access to telepsychiatry services for ADHD.[9] In that there are currently no published clinical guidelines to help inform policies on how to balance these opposing points of view, we have assembled a panel of 14 experts from diverse areas within the ADHD treatment ecosystems, including specialists with backgrounds in psychiatry, psychology, developmental pediatrics, and advanced practice

Table 1. Current Guidelines for ADHD

Commonalities in recommendations: • Patients with mental health complaints: screen for attention-deficit hyperactivity disorder (ADHD) with assessment of complete clinical history, use of evidence-based rating scales, and observations from multiple settings. • Screen for comorbid conditions, especially comorbid psychiatric disorders. • In patients with no cardiac history, electrocardiogram (ECG) prescreening or monitoring is not required. • Diagnosis does not require laboratory, neuroimaging, or psychological testing. • Medication and behavioral therapy (BT) are the mainstays of treatment, with little evidence for alternative therapies, such as diet or neurofeedback. • Manage a chronic condition with ongoing monitoring for symptoms and side effects.[2, 26-34]	
Distinct aspects of recommendations by group:	
American Academy of Pediatrics (AAP)	4-5 years: • First line: BT, then medications if no significant improvement. 6+ years: • First line: ADHD medications and/or BT.[2, 26]
Australian ADHD Professionals Association (AAPDA)	• Highlighted gaps in knowledge that need to be addressed, such as ADHD presentations in girls and women. • Family training for ADHD should be offered to support the family. • As a child transitions to an adolescent and an adult, clinicians should plan for a smooth transition of health services throughout life.[27]
Canadian ADHD Resource Alliance (CADDRA)	6+ years: • First line: Long-acting stimulants and nonstimulants can augment suboptimal responders of first-line treatment. • Second line: Atomoxetine and guanfacine. • Use BT as appropriate, tailoring to family/patient preference.[28]
Canadian Network for Mood and Anxiety Treatments (CANMAT)	Recommendations for adults with comorbid mood disorders: • ADHD should be diagnosed when euthymic. Bipolar disorder + ADHD: • Mood stabilizers prior to ADHD therapies. • First line: Bupropion, while mixed amphetamine salts and methylphenidate for patients with low risk of switching into mania. • Second line: Modafinil and CBT. Major depressive disorder (MDD) + ADHD: • Moderate/severe MDD: Prioritize treating MDD first, whereas treatment can be switched for mild/euthymic MDD. • First line: Bupropion + long-acting stimulant, or antidepressant + CBT. • Second line: Desipramine, nortriptyline, and venlafaxine.[29]
International Consensus Statement on ADHD and SUD	• Individuals with commonly co-occurring substance use disorder (SUD) and ADHD will often benefit from pharmacologic treatment of ADHD and related conditions. • Individuals need to be in active substance use treatment, attempting to maintain periods of sobriety when being treated for ADHD. • Long-acting sustained-release stimulants were preferred. • Short-acting stimulants should be avoided, especially whenever there is concern about possible substance abuse, misuse, or diversion.[30]
National Institute for Health Care Excellence: UK (NICE)	Under 5 years: • Trial of ADHD-focused BT, with nonresponders evaluated by a specialist before starting medication. 5+ years: • First line: Methylphenidate. • Second line: Lisdexamfetamine or dexamphetamine. • Third line: Atomoxetine or guanfacine.[31]
Substance Abuse and Mental Health Services Administration (SAMHSA)	• Discusses the need for appropriate ADHD care in adolescents, university age, and adults while balancing the potential of nonmedical stimulant misuse.[32]
Society for Developmental and Behavioral Pediatrics (SDBP)	• Evaluation of complex ADHD is focused on comorbidities such as developmental delays, learning disabilities, and comorbid mental and physical health conditions. • Emphasizes the need for wrap-around services including educational interventions, parent skill training, and individual therapy for families. • Address and treat coexisting conditions, focusing on functional impairment.[33]

mental health nursing. The assembled panel was chosen to represent diversity in clinical, cultural, and geographic backgrounds, with members drawn from academic institutions, psychiatric research, medical administration, and independent practice. All members of this expert consensus panel have extensive use of telepsychiatry with expertise in clinical care, medical education, teaching, medical administration, coordination of care, or consultation for companies providing telehealth services. Independent comprehensive literature reviews utilizing PubMed and Google Scholar were conducted by 3 members of the panel (GWM, JH, and SMS) to review prior research, published guidelines, and published commentary regarding ADHD and telepsychiatry care. Distinct questions regarding telepsychiatry and ADHD care were then posed to all 14 members to determine areas of consensus. These expert consensus statements are being developed to lend guidance regarding the role of telepsychiatry in ADHD care.

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Current guidelines for mental health delivery and ADHD

Numerous guidelines have been developed and published by both US and international groups for the diagnosis and treatment of ADHD in children with face-to-face appointments.[10–19] Only international groups have published such guidelines for ADHD in adults, although the American Professional Society for ADHD and Related Disorders has recently announced its intent to develop them as well.[20] So far, only one international group has published guidelines for the use of telepsychiatry for ADHD during the pandemic but without comment on guidelines to follow the pandemic.[19] No group has yet developed guidelines for the diagnosis and treatment of ADHD by telehealth post pandemic. Published guidelines for treating ADHD in face-to-face settings are shown in Table 1.[10–19]

The European ADHD Working Group is the only body of experts to have published practical guidelines at the start of the COVID pandemic on how to utilize telehealth services safely and consistently to deliver ADHD care throughout the COVID pandemic.[19] These guidelines support the role of telemental health for new patient evaluations and for ongoing ADHD treatment and management; they also emphasize the need for a thorough initial evaluation to screen for both mental and physical comorbid conditions. The European ADHD group further discusses strategies to incorporate at-home or online tools for measuring blood pressure and heart rate when initiating ADHD treatment or modifying doses.[19] They also highlight the lack of guidelines for the treatment of adults with ADHD in the United States or for the treatment of ADHD in adults or children utilizing telepsychiatry.[19]

Balancing the risks and benefits of telepsychiatry for ADHD: risks (Figure 1)

A significant perceived risk of telepsychiatry is the enablement of such easy access to stimulants that individuals, mostly adults, who do not have ADHD, might exploit telepsychiatry to get stimulants, especially immediate-release formulations for illegal use. Although this has not been documented in any study to date, the risk of diagnosing ADHD inaccurately by telepsychiatry may be greater than in face-to-face encounters. Such telepsychiatry evaluations may be inadequate due to reduced clinician–patient rapport, technologic limitations, and individuals who may be malingering with knowledge of ADHD symptoms seeking stimulant prescriptions for misuse, abuse, or diversion. Nonmedical use of stimulants by crushing, chewing, or consuming with alcohol is a huge challenge and is highly prevalent, ranging from 2.1% to 58.7%, and the prevalence of diversion is estimated to range from 0.7% to 80.0%.[21] Past-year prevalence among college students of nonmedical use was 5.9%.[22,23] Among college students, the past-year medical use of prescription stimulants for ADHD has had similar increases in the past-year diversion and nonmedical use of prescription stimulants.[23] It is exceptionally challenging to accurately detect malingering.[24] In one study, routine clinical evaluations proved neither useful nor sensitive for detecting malingering in ADHD. Furthermore, motivated college students who malingered readily produced ADHD-consistent profiles.[25]

Studies have found that college students misuse dextroamphetamine-amphetamine (immediate-release Adderall) more than other prescription stimulants.[23] According to the 2012 National Survey on Drug Use and Health, nonmedical use of dextroamphetamine-amphetamine rose sharply among both college-aged adults and adults ages 26 and older (Figure 2). These findings plus the fact that much of the research into the misuse of prescribed stimulants focuses on college students suggest that guidelines for telepsychiatry should pay particular attention to this age group as studies have also found that up to 20% of college students have used a prescription stimulant without having a legitimate prescription in the prior year, and even those with legitimate prescriptions commonly either sell or give away their stimulants.[21,23,26–28] In one case, 55% of fraternity members at a large public university in the Southeast had used prescription stimulants without a prescription.[23,29] In addition to obtaining stimulants from classmates or fraternity brothers, there is the very real possibility that prospective new patients in this age group presenting to telepsychiatry may be at higher risk for attempting to obtain prescription stimulants without having a diagnosis of ADHD.

Thus, there is concern that increasing access to telepsychiatry could potentially worsen "doctor shopping," as desperate patients have been observed to drive hundreds of miles for prescriptions.[30]

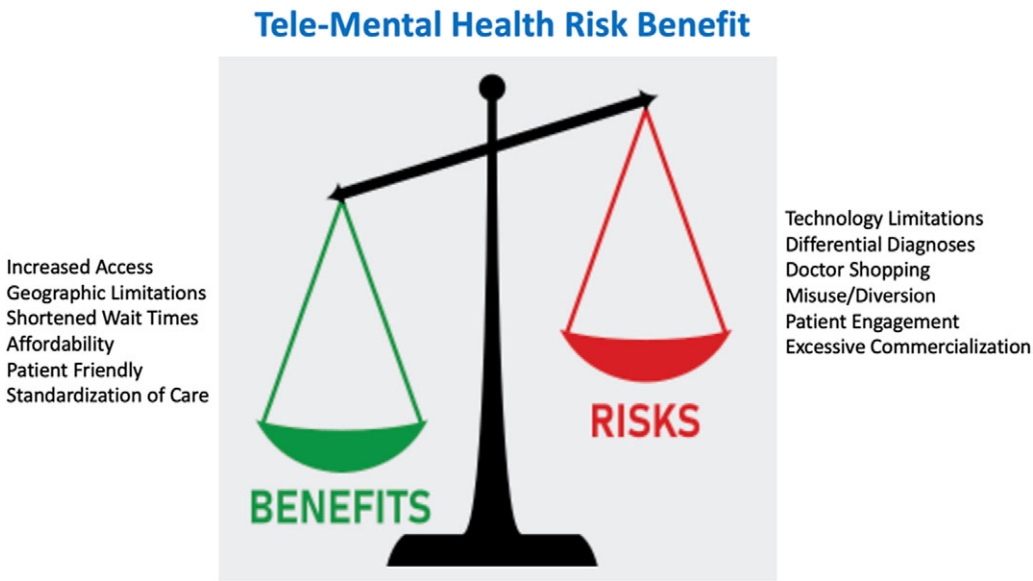

Figure 1. Weighing the risks and the benefits of telepsychiatry for ADHD[16].

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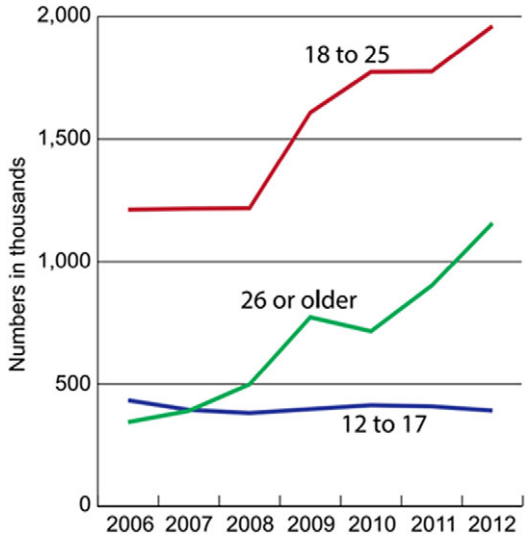

Figure 2. SAMHSA advisory on nonmedical use of Adderall.[24]

There should always be a special concern for patients intentionally trying to obtain prescriptions with abuse potential, but extra caution should be taken for virtual or telehealth care delivery models as evaluation can be more limited than the traditional in-person evaluation.[31] To prevent diversion and misuse, prescribers should check online databases for prescription drug monitoring programs.[30] Short-acting stimulants should be avoided during initial telemedicine appointments and further minimized when treating young adults or adults with ADHD, as long-acting stimulants have lower rates of misuse or abuse with no significant differences in efficacy between short- and long-acting stimulant medications.[32]

The risks of inappropriate stimulant prescriptions are the known adverse medical outcomes with stimulants, especially if they are misused, including increased suicidality and death that occur in some individuals, particularly when administered by nonoral routes. Common side effects include insomnia, tics, anorexia, and weight loss that may lead to nonadherence or early discontinuation in young children due to fear of adversely stunting growth in kids. Other rare but serious side effects include increased blood pressure, stroke, myocardial infarction, sudden death, delusions, hallucinations, paranoia, and mania, and amphetamines may increase the risk of seizures.[33]

Additionally, young adults who may be inappropriately seeking stimulants are quite impressionable, especially in the age of social media. A recent study evaluated the 100 most influential ADHD TikTok videos, a new social media platform popular among adolescents and young adults, and found that 52% of these videos were "misleading" or had incorrect information. Only 11% of these videos were found to be created by health care professionals, despite receiving millions of views, potentially contributing to high levels of misinformation.[34] Excessive social media marketing and social media exposure may increase the possibility that patients may increasingly seek evaluation for ADHD.

Consensus statements and guidelines should work to prevent financial incentives that encourage prescribers to employ shortcuts in assessing and treating ADHD at the expense of quality patient care and potentially dangerous consequences. One way to do this with the COVID-19 public health emergency ending is to reinstate the rule that patients must be seen in person prior to writing a prescription for a controlled substance.[35] However, in practice, this is likely to create a large burden for certain underserved patients and providers, as some patients have only seen their providers virtually since the pandemic began, and there may not be an opportunity to be "grandfathered in." Regulations for online prescribing of stimulants are likely to evolve with debate, professional society reactions, and even new legislation for the foreseeable future, trying to balance what has proven to be the great benefits of increased access to care with the risks of misuse, abuse, and diversion. Thus, this expert consensus guidelines for diagnosing and prescribing stimulants by telepsychiatry are important.

Balancing the risks and benefits of telepsychiatry for ADHD: benefits (Figure 1)

The Centers for Disease Control and Prevention (CDC) has documented rising US adult stimulant prescriptions over the past 5 years, with a substantial spike from 2020 to 2021 following a temporary suspension of the Ryan Haight Act during the pandemic.[3,9] The CDC, FDA, and Drug Enforcement Administration have all expressed concern about the significant increase in psychostimulant prescriptions that occurred in 2020 and 2021 with the dramatic increase in telepsychiatric prescribing.[1,3,9] *Contributing factors to the spike in stimulant prescriptions could also be longstanding efforts to expand access to ADHD care by reducing disparities in rural areas and for those who cannot afford treatment, to increases in treatment-seeking due to the challenges of the pandemic, and to digital startups prescribing stimulants online.*[1,7] These gains risk being lost if overregulation of telepsychiatry in the postpandemic period unduly restricts access to diagnostic and treatment services for ADHD.

It is thus critical to know to what extent newly prescribed stimulants are medically appropriate and thus are reducing untreated ADHD, or instead represent stimulants being provided to those who do not need them. To optimize and shape future treatment guidelines for telepsychiatry and ADHD, research is necessary to assess those with new stimulant treatment received by telepsychiatry: are they young adults, older adults, or children, and are they receiving the most abusable immediate-release stimulants or other treatment options?

In addition to being perceived as enhancing access, surveys of ADHD advocates and support organizations have in general shown high favorability for ADHD telehealth and hybrid models, with decreased wait times and decreased amount of time required for traditional in-office care.[36–38] An open trial was conducted to test the feasibility of video-conferenced psychotherapy for adolescents and their families, as adolescents with ADHD can be challenging to engage in treatment. All 20 families participated, incorporating dyadic therapy and motivational interviewing. There was high satisfaction with the families, perceived enhanced treatment, and reductions in ADHD symptoms.[39] In the Children's ADHD Telemental Health Treatment Study, methods were used to include underserved children. The study intervention group received 6 virtual sessions, each followed by a session of in-person caregiver training and compared it to the control, which received primary care treatment augmented with a single telepsychiatric consultation. As noted by both parents and teachers, children in the intervention group did significantly better than control on combined ADHD symptoms, oppositional defiant disorder, and parent-caregiver role performance.[36–38] Caregiver stress and burden were also significantly improved in the group receiving online telehealth pharmacologic management.[36] In addition to seeing

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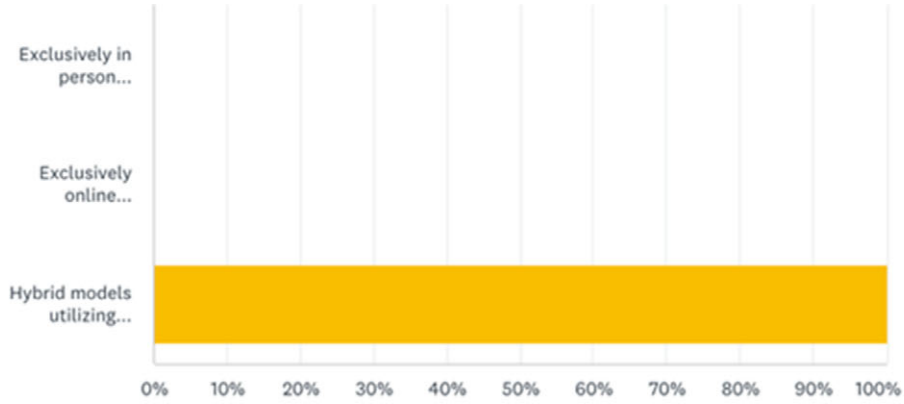

ANSWER CHOICES	RESPONSES	
Exclusively in person evaluation and management	0.00%	0
Exclusively online evaluation and management	0.00%	0
Hybrid models utilizing combinations of both in person and online tele-health evaluation and management	100.00%	13

Figure 3. Guidance 1: Optimal models for ADHD care.

patients virtually, digital augmentation for enhancing ADHD outcomes has shown promising results. Two studies utilizing digital coaching text reminders significantly improved medication adherence in both children and adults with ADHD.[40,41] Another meta-analysis included 12 studies that aimed to review telemedicine intervention for the management of children and adolescents with ADHD, looking at its effect size on symptoms. The pooled results of the 12 studies showed a small but significant effect of telemedicine on attention/cognitive function, hyperactivity–impulsivity, and oppositional behavior subscales.[42] Preliminary data for the use of telemedicine and digital augmentation in the treatment of ADHD are limited but are promising, and more research needs to be done.

The impact of enhanced access to evaluations and treatment for ADHD is, of course, a reduction in the known risks of untreated ADHD, including a variety of negative physical and emotional consequences with a potentially significant impact on social and emotional well-being. Beyond academic difficulties, children have been shown to struggle with learning disabilities and peer relationships, as well as have increased difficulty with emotional dysregulation.[43,44] They also have an increased risk of several comorbid psychiatric illnesses including autism spectrum disorder, depression, generalized anxiety disorder, conduct disorder, and intermittent explosive disorder.[44,45] Adolescents are at increased risk for having unwanted teenage pregnancies, legal difficulties, and abusing substances.[46–48] Adults have increased rates of anxiety, mood disorders, and challenges with impulse control such as substance use disorders and binge eating disorder, increasing their chances of developing associated medical conditions such as obesity and type 2 diabetes.[3] Adults with ADHD alone have almost twice the mortality rate compared with the overall all-cause mortality rate of the general population.[49] As the number of conditions comorbid with ADHD increases, all-cause mortality rates dramatically increase compared to the general population. If a patient with ADHD has one comorbid condition, the all-cause mortality rate is 4 times the general population and the mortality rate is 25 times the general population when they have more than 4 comorbidities.[50]

The excess mortality in ADHD was mostly driven by deaths from unnatural causes, especially accidents, even when adjusted for conditions such as oppositional defiant disorder and substance use disorder.[50–52] In addition to a rise in overall mortality rates, a cohort study of 2.9 million subjects with ADHD alarmingly found a fourfold higher rate of suicide attempts and deaths in patients with ADHD. This risk was increased 10-fold if the patient had another comorbid psychiatric diagnosis.[52] Patients with untreated ADHD can struggle with lower lifetime occupational and economic performance, educational underachievement, and increased difficulty with financial management.[14,53] Untreated individuals have an increased risk for all-cause mortality rates and psychiatric comorbidities including increased suicidality, underlying the potentially lifesaving importance of appropriately diagnosing and treating ADHD.[14,52,53]

Treatment for ADHD thus has many benefits and has been shown to improve measures of overall quality of life while simultaneously decreasing many negative outcomes associated with this disease. Specifically, treatment with ADHD medications reduces accidental injuries, traumatic brain injury, educational underachievement, bone fractures, sexually transmitted infections, criminal activity, and teenage pregnancy.[14,51,54] Relative to the general population, those with untreated ADHD had increased all-cause mortality rates.[49] Treatment for ADHD was associated with an overall decrease in accidental injury and medical utilization due to accidents and trauma, with motor vehicle accidents decreased by up to 42%.[55] Children with treated ADHD have shown significantly lower symptoms of aggression and reduced emergency room visits by 45% compared to their untreated peers.[51] ADHD treatment has also been shown to decrease the development of secondary comorbidities including depression, anxiety, substance abuse, and cigarette smoking.[14,51,53] Individuals treated for ADHD have better response rates to antidepressants resulting in better patient outcomes when treating for major depressive disorder.[56] Individuals with comorbid substance use disorders are also more likely to remain abstinent from substances, reducing the risks of continued substance use.[54] Additionally, the criminality rates of adolescents and adults go down by 31–41% when treated for ADHD.[57] Thus, treatment of ADHD can dramatically improve functionality and life outcomes. Having increased access to diagnosis and treatment

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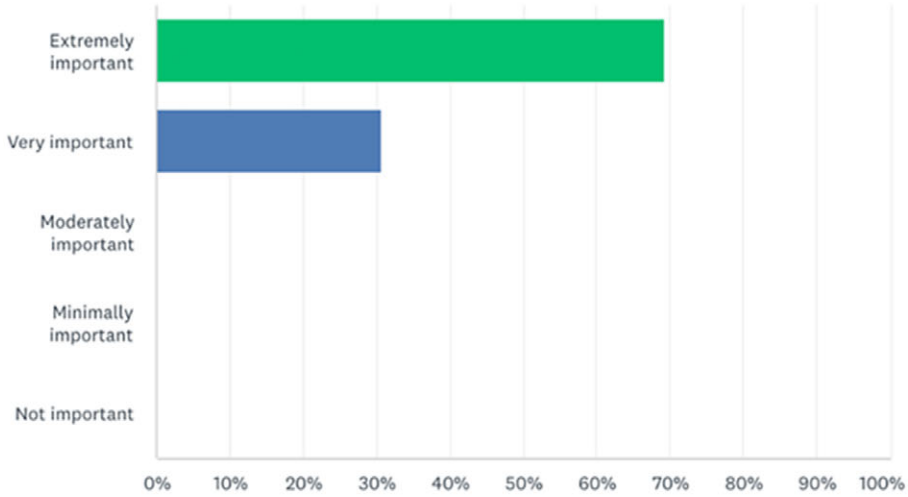
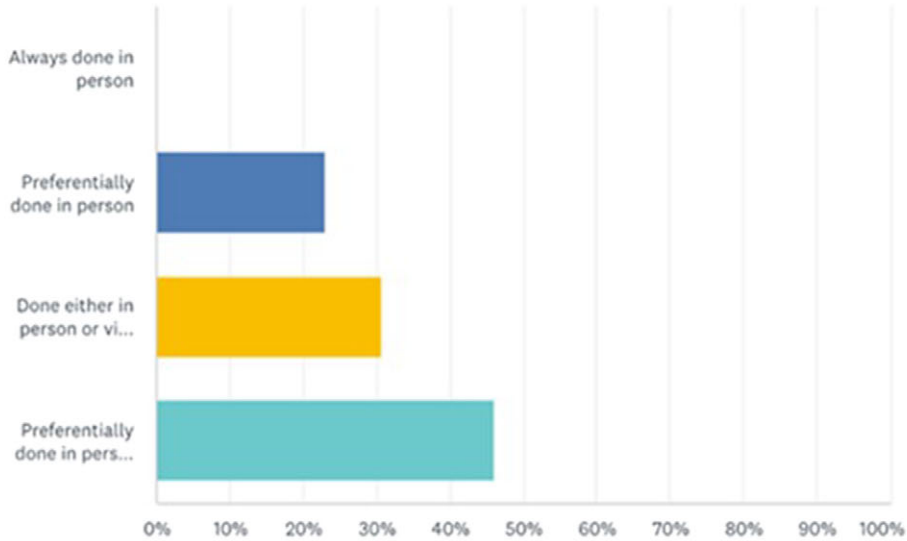


ANSWER CHOICES	RESPONSES	
Extremely important	69.23%	9
Very important	30.77%	4
Moderately important	0.00%	0
Minimally important	0.00%	0
Not important	0.00%	0

Figure 4. Guidance 2: Expanded mental health care through telemedicine.



ANSWER CHOICES	RESPONSES	
Always done in person	0.00%	0
Preferentially done in person	23.08%	3
Done either in person or via tele-medicine depending on the clinical circumstance	30.77%	4
Preferentially done in person but can be done via tele-medicine depending in the clinical circumstance	46.15%	6

Figure 5. Guidance 3. Initial assessments for ADHD evaluation.

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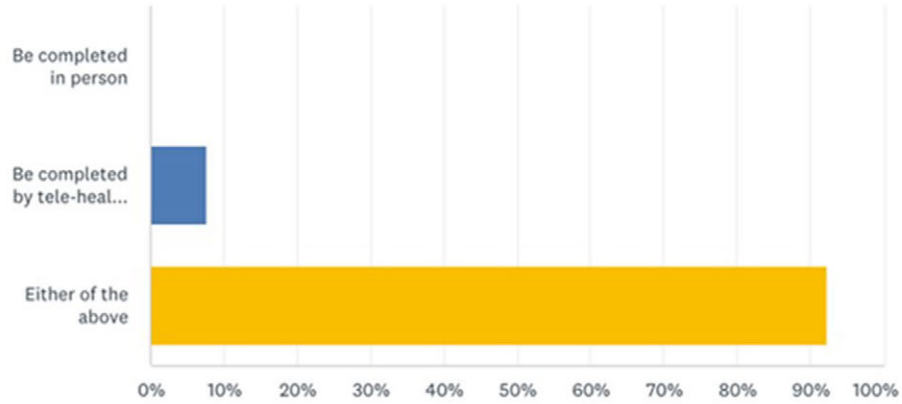
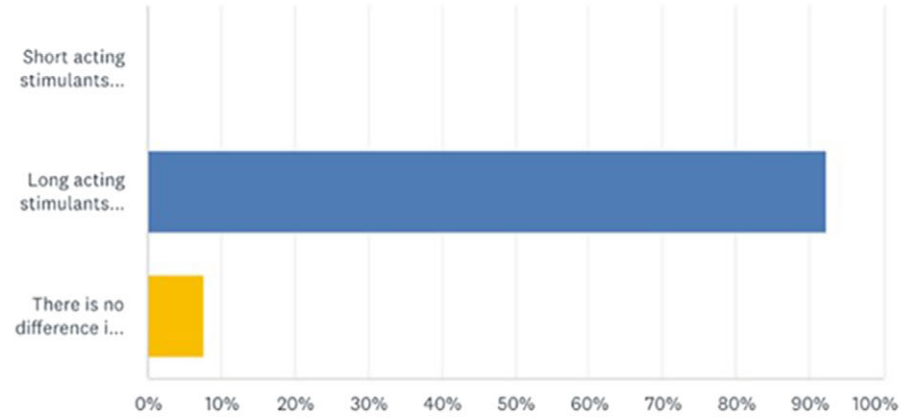


ANSWER CHOICES	RESPONSES	
Be completed in person	0.00%	0
Be completed by tele-health appointments	7.69%	1
Either of the above	92.31%	12

Figure 6. Guidance 4. Follow-up visits for ADHD assessment.



ANSWER CHOICES	RESPONSES	
Short acting stimulants should never be used	0.00%	0
Long acting stimulants would be preferred and short acting stimulants should used with increased caution	92.31%	12
There is no difference in the need to avoid short acting stimulants	7.69%	1

Figure 7. Guidance 5: Medication Options.

via telepsychiatry will potentially bring the benefits of ADHD treatment to a new population of hitherto untreated patients with ADHD.

ADHD expert consensus statements

After initial discussions of various associated aspects of telepsychiatric care for ADHD, these experts were asked to respond to a poll on 8 specific statements, with the results shown in Figures 3–10. All experts here have personally used telehealth or supervised others in the use of telehealth to manage individuals with ADHD, and all experts felt that models incorporating ADHD telehealth were "as important" or "more important" than telehealth for other areas of mental health delivery. Our diverse panel of experts arrived at 8 ADHD Expert Consensus (EC) statements with high internal agreement.

Guidance 1. Optimal models for ADHD care incorporate hybrid treatment utilizing combinations of both in-person and online telehealth evaluation and management (Figure 3).

Guidance 2. Expanded health care through telemedicine for individuals with ADHD was rated as very important or extremely important by all experts (Figure 4).

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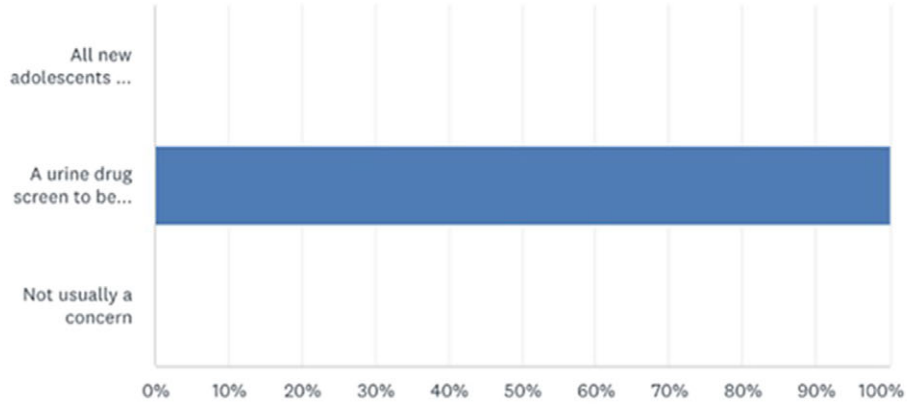
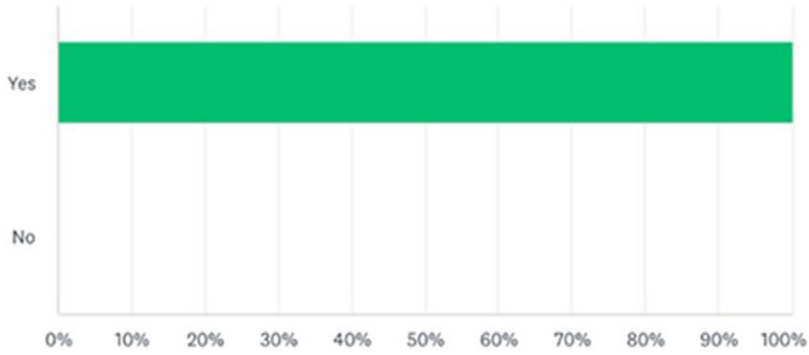


ANSWER CHOICES	RESPONSES	
All new adolescents and adults to receive a urine drug screen	0.00%	0
A urine drug screen to be ordered in cases where substance abuse or misuse is suspected	100.00%	13
Not usually a concern	0.00%	0

Figure 8. Guidance 8: Urine Drug Screens.



ANSWER CHOICES	RESPONSES	
Yes	100.00%	13
No	0.00%	0

Figure 9. Guidance 7: Telehealth Utilization.

Guidance 3. Initial assessments for ADHD evaluation can be done either online or in person, with the majority of experts feeling that "in-person" evaluation is preferential for an initial assessment. It is further recommended that short-acting stimulants be avoided during initial telemedicine appointments. The full reinstitution of the Ryan Haight Act will require patients to be seen in person before a stimulant can be prescribed, but the panel felt that exceptions to this should be possible for remote geography and other barriers to access to face-to-face interviews such as affordability, transportation, and disabilities in order to improve equitable access to care (Figure 5).

Guidance 4. Follow-up visits for ADHD assessment and management can be completed either in person or via telehealth depending on patient preference. However, in either case, careful follow-up for new patients in order to establish rapport, monitor compliance, and uncover malingering was agreed upon, especially for adults of college age who have no prior history of a diagnosis of ADHD in childhood and who request immediate-release stimulants explicitly (Figure 6).

Guidance 5. The vast majority of experts agreed that long-acting stimulants or nonstimulants are preferred during telemedicine, given the possibility of short-acting stimulant misuse or diversion. This guidance regarding minimizing the prescription of short-acting stimulants is especially important for adolescents, young adults, and adults who have been shown to have the greatest potential for misuse or abuse (Figure 7).

Guidance 6. A urine drug screen should be ordered in cases where substance abuse is suspected but is not mandatory when there is no suspicion of substance misuse, abuse, or diversion (Figure 8).

Guidance 7. Unanimous agreement that hybrid and telehealth can be utilized for both children/adolescents and adults with ADHD (Figure 9).

Guidance 8. There was unanimous agreement that telehealth ADHD treatment models should also offer in-person care when:

a patient is struggling with online treatment,
a patient decompensates and is in crisis,

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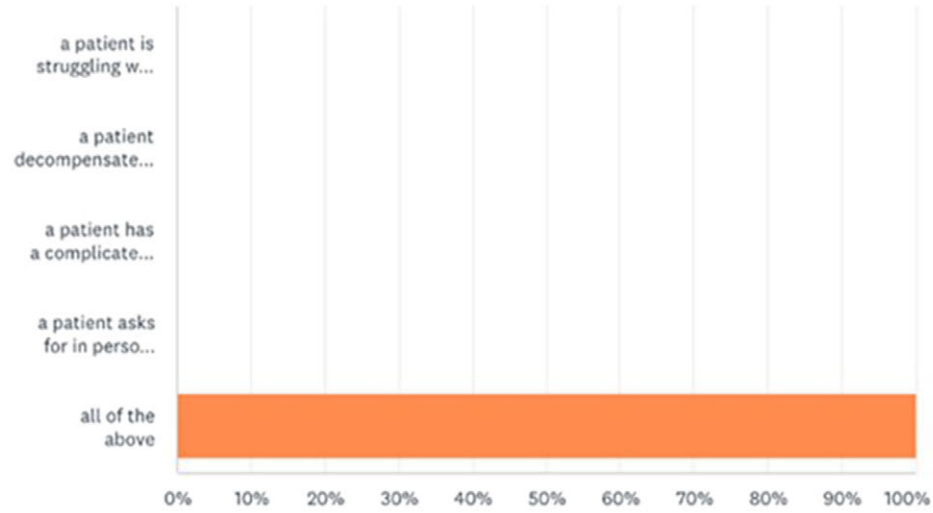

ANSWER CHOICES	RESPONSES	
a patient is struggling with online treatment	0.00%	0
a patient decompensates and is in crisis	0.00%	0
a patient has a complicated differential diagnosis	0.00%	0
a patient asks for in person psychotherapy	0.00%	0
all of the above	100.00%	13

Figure 10. Treatment Options.

a patient has a complicated differential diagnosis,
a patient asks for in-person psychotherapy (Figure 10).

In addition to these 8 statements, 85% of our experts felt that online initial ADHD evaluations would ideally have symptoms verified by an outside informant. When utilizing telehealth, 31% of our expert panel felt that rating scales were even "more important," with 69% stating that they were similarly important as compared to in-person care. All felt that hybrid models had the potential to "enhance access to care" and 85% felt that it also had the potential to improve "follow-up and long-term management" and "standardize outcomes by increased utilization of rating scales."

Discussion

These consensus statements to balance the competing forces of increasing the availability of telepsychiatry for ADHD to enhance access to care, reduce the large number of untreated cases, and prevent the treatable adverse outcomes of untreated ADHD, versus reducing the availability of telepsychiatry for ADHD in order to mitigate the possibility of exploiting telepsychiatry for misuse, abuse, and diversion of stimulants. This Expert Consensus Group felt that the benefits of telehealth ADHD care include increased access for patients and consumers, especially for individuals in geographically challenged communities. Telehealth and hybrid models may also help bridge the lack of affordable mental health care and help decrease disparities in care. In many communities, access to experts with ADHD expertise is not only limited but can prove cost-prohibitive. This is especially important, given the nationwide shortage of mental health professionals and the systemic limitations on training new psychiatric residents and fellows. Dropping the requirement for an in-person evaluation prior to prescribing a stimulant likely ignited a spike in the number of stimulants prescribed. Reinstituting this requirement permanently and in full will likely greatly reduce access to ADHD evaluations and treatment with stimulants once again. While these guidelines advocate for some flexibility in allowing telepsychiatry evaluations and treatment without an in-person evaluation, they also recognize the need to give greater scrutiny to certain subpopulations, such as young adults without a prior diagnosis or history of ADHD treatment who request immediate-release stimulants. In these cases, the guidance is to raise the index of suspicion for diversion, misuse, and abuse and to consider the prescription of nonstimulants or controlled-release stimulants for treatment. In cases of diagnostic uncertainty or perceived increased risk of misuse or diversion, psychosocial interventions or therapy should also be considered as an initial treatment option.

When seen in the backdrop of a nationwide stimulant shortage, these expert consensus findings stress that long-acting stimulant and nonstimulant medications are preferred when utilizing telehealth. The ADHD expert consensus panel unanimously found that in-person initial evaluation is preferred but that telehealth assessments can be utilized when clinically warranted. ADHD telehealth has been shown to enhance or improve outcomes for children, adolescents, and adults similar to standard care models. Both pharmacologic and psychotherapeutic interventions have shown benefits with ADHD telehealth. In cases where substance use, abuse, or misuse is suspected, a urine drug screen is recommended but not mandated in cases without such concern. Organizations delivering online ADHD telehealth must also provide in-person services when

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there is a complicated differential diagnosis, a patient is struggling with online treatment, a patient asks for in-person psychotherapy, or when a patient decompensates or is in crisis.

The telehealth revolution has created a dramatic evolution within the mental health field for clinicians, our patients, and society. Harnessing the power of these rapidly evolving technological advances has the potential to improve access, promote education, enhance outcomes, and destigmatize the burden of seeking treatment for ADHD and associated mental health conditions.

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References

1. Winkler R. DEA pressed ADHD-drug makers about impact of telehealth firms on surging demand. Available at: https://www.wsj.com/articles/dea-pressed-adhd-drug-makers-about-impact-of-telehealth-firms-on-surging-demand-11672500036.
2. Galvin E, Desselle S, Gavin B, et al. Patient and provider perspectives of the implementation of remote consultations for community-dwelling people with mental health conditions: a systematic mixed studies review. *J Psychiatr Res*. 2022;**156**:668–678. doi:10.1016/j.jpsychires.2022.10.051.
3. Danielson ML, Bohm MK, Newsome K, et al. Trends in stimulant prescription fills among commercially insured children and adults — United States, 2016–2021. *MMWR Morb Mortal Wkly Rep*. 2023;**72**:327–332. doi:10.15585/mmwr.mm7213a1.
4. Olfson M, Wall MM, Wang S, Laje G, Blanco C. Treatment of US children with attention-deficit/hyperactivity disorder in the adolescent brain cognitive development study. *JAMA Network Open*. 2023;**6**(4):e2310999. doi:10.1001/jamanetworkopen.2023.10999.
5. Kessler RC, Adler L, Barkley R, et al. The prevalence and correlates of adult ADHD in the United States: results from the National Comorbidity Survey Replication. *Am J Psychiatry*. 2006;**163**(4):716–723.
6. FDA announces shortage of Adderall. United States Food and Drug Administration; 2022 October 12. Available at: https://www.fda.gov/drugs/drug-safety-and-availability/fda-announces-shortage-adderall.
7. Sibley MH, Faraone SV, Nigg JT, Surman CBH. Sudden increases in US Stimulant prescribing: alarming or not? *J Attention Dis*. 2023;**27**:571–574. doi:10.1177/10879547231164155.
8. Brumbaugh S, Tuan WJ, Scott A, Latronica JR, Bone C. Trends in characteristics of the recipients of new prescription stimulants between years 2010 and 2020 in the United States: an observational cohort study. *EClin Med*. 2022;**50**:101524. doi:10.1016/j.eclinm.2022.101524.

9. Califf R, Milgram A. Food and Drug Administration; 2023 August 1. Available at: https://www.fda.gov/media/170736/download?attachment.
10. Wolraich ML, Hagan JF, Allan C, et al. Clinical practice guideline for the diagnosis, evaluation, and treatment of attention-deficit/hyperactivity disorder in children and adolescents. *Pediatrics*. 2019;**144**(4):e20192528.
11. Australian evidence based clinical practice guideline for attention deficit hyperactivity disorder (ADHD). Available at: https://adhdguideline.aadpa.com.au/wp-content/uploads/2022/10/ADHD-Clinical-Practice-Guide-041022.pdf.
12. CADDRA-Canadian ADHD Resource Alliance. *Canadian ADHD Practice Guidelines*, Vol. **4**, 1st edn. Toronto, ON: CADDRA; 2020.
13. Bond DJ, Hadjipavlou G, Lam RW, McIntyre RS, Beaulieu S, Schaffer A, Weiss M; Canadian Network for Mood and Anxiety Treatments (CANMAT) Task Force. The Canadian Network for Mood and Anxiety Treatments (CANMAT) task force recommendations for the management of patients with mood disorders and comorbid attention-deficit/hyperactivity disorder. *Ann Clin Psychiatry*. 2012;**24**(1):23–37.
14. Faraone SV, Banaschewski T, Coghill D, et al. The World Federation of ADHD International Consensus Statement: 208 evidence-based conclusions about the disorder. *Neurosci Biobehav Rev*. 2021;**128**:789–818. doi:10.1016/j.neubiorev.2021.01.022.
15. National Institute for Health Care Excellence (NICE). Attention deficit hyperactivity disorder: diagnosis and management (NG87). Available at: www.nice.org.uk/guidance/ng87.
16. SAMHSA advisory adults with attention deficit hyperactivity disorder and substance use disorders. Available at: https://store.samhsa.gov/sites/default/files/d7/priv/sma15-4925.pdf.
17. Barbaresi WJ, Campbell L, Diekroger EA, et al. Society for developmental and behavioral pediatrics clinical practice guideline for the assessment and treatment of children and adolescents with complex attention-deficit/hyperactivity disorder. *J Dev Behav Pediatr*. 2020;**41**(Suppl 2S):S35–S57. doi:10.1097/DBP.0000000000000770.
18. Sibley M, Childress A. Why we need U.S. guidelines for adults with ADHD. IBCCES learning community. Available at: https://ibcces.org/learning/why-we-need-u-s-guidelines-for-adults-with-adhd/.
19. Cortese S, Asherson P, Sonuga-Barke E, et al. ADHD management during the COVID-19 pandemic: guidance from the European ADHD Guidelines Group. *Lancet Child Adolesc Health*. 2020;**4**(6):412–414. doi:10.1016/S2352-4642(20)30110-3.
20. McAlister B. American Professional Society of ADHD and Related Disorders (APSARD). The first U.S. guidelines for adult ADHD to be released by the American Professional Society of ADHD and Related Disorders (APSARD.org). 2022 August 23. Available at: https://apsard.org/us-guidelines-for-adults-with-adhd/.
21. Faraone SV, Rostain AL, Montano CB, Mason O, Antshel KM, Newcorn JH. Systematic review: nonmedical use of prescription stimulants: risk factors, outcomes, and risk reduction strategies. *J Am Acad Child Adolesc Psychiatry*. 2020;**59**(1):100–112. doi:10.1016/j.jaac.2019.06.012.
22. Faraone SV, Hess J, Wilens T. Prevalence and consequences of the nonmedical use of amphetamine among persons calling poison control centers. *J Atten Disord*. 2019;**23**(11):1219–1228. doi:10.1177/1087054719843182.
23. McCabe SE, West BT, Teter CJ, Boyd CJ. Trends in medical use, diversion, and nonmedical use of prescription medications among college students from 2003 to 2013: connecting the dots. *Addict Behav*. 2014:**39**(7), 1176–1182. doi:10.1016/j.addbeh.2014.03.008.
24. Sollman MJ, Ranseen JD, Berry DT. Detection of feigned ADHD in college students. *Psychol Assess*. 2010;**22**(2):325. doi:10.1037/a0018857.
25. Musso MW, Gouvier WD. "Why is this so hard?" A review of detection of malingered ADHD in college students. *J Atten Disord*. 2014;**18**(3):186–201. doi:10.1177/1087054712441970.
26. Wilens TE, Adler LA, Adams J, et al. Misuse and diversion of stimulants prescribed for ADHD: a systematic review of the literature. *J Am Acad Child Adolesc Psychiatry*. 2008;**47**(1):21–31.
27. Massuti R, Moreira-Maia CR, Campani F, Sônego M, Amaro J, Akutagava-Martins GC, Tessari L, Polanczyk GV, Cortese S, Rohde LA. Assessing undertreatment and overtreatment/misuse of ADHD medications in children and adolescents across continents: a systematic review and meta-analysis. *Neurosci Biobehav Rev*. 2021;**128**:64–73. doi:10.1016/j.neubiorev.2021.06.001.
28. McCabe SE, Schulenberg JE, Wilens TE, Schepis TS, McCabe VV, Veliz PT. Prescription stimulant medical and nonmedical use among US secondary school students, 2005 to 2020. *JAMA Network Open*. 2023;**6**(4):e238707. doi:10.1001/jamanetworkopen.2023.8707.
29. Desantis A, Noar SM, Webb EM. Nonmedical ADHD stimulant use in fraternities. *J Stud Alcohol Drugs*. 2009;**70**(6):952–954. doi:10.15288/jsad.2009.70.952.
30. Kruse CS, Kindred B, Brar S, Gutierrez G, Cormier K. Health information technology and doctor shopping: a systematic review. *Healthcare (Basel)*. 2020;**8**(3):306. doi:10.3390/healthcare8030306.
31. Rolison MJ, Bloch MH. Revisiting best practices: a reflection on the online evaluation and treatment of ADHD and implications for future practice. *Child Adolesc Psychiatry Ment Health*. 2023;**17**(1):43. doi:10.1186/s13034-023-00593-z.
32. Faraone SV, Glatt SJ. A comparison of the efficacy of medications for adult attention-deficit/hyperactivity disorder using meta-analysis of effect sizes. *J Clin Psychiatry*. 2010;**71**(6):754–763.
33. Wigal SB. Efficacy and safety limitations of attention-deficit hyperactivity disorder pharmacotherapy in children and adults. *CNS Drugs*. 2009;**23**(Suppl 1):21–31.
34. Yeung A, Ng E, Abi-Jaoude E. TikTok and attention-deficit/hyperactivity disorder: a cross-sectional study of social media content quality. *Can J Psychiatry*. 2022;**67**(12):899–906.
35. Second temporary extension of COVID-19 telemedicine flexibilities for prescription of controlled medications. *Federal Register: The Daily Journal of the United States Government*, 2023. Available at: https://www.federalregister.gov/documents/2023/10/10/2023-22406/second-temporary-extension-of-covid-19-telemedicine-flexibilities-for-prescription-of-controlled.
36. Vander Stoep A, McCarty CA, Zhou C, Rockhill CM, Schoenfelder EN, Myers K. The children's attention-deficit hyperactivity disorder telemental health treatment study: caregiver outcomes. *J Abnorm Child Psychol*. 2017;**45**(1):27–43. doi:10.1007/s10802-016-0155-7.
37. Vander Stoep A, Myers K. Methodology for conducting the children's attention-deficit hyperactivity disorder telemental health treatment study in multiple underserved communities. *Clin Trials*. 2013;**10**(6):949–958. doi:10.1177/1740774513494880.
38. Myers K, Vander Stoep A, Zhou C, McCarty CA, Katon W. Effectiveness of a telehealth service delivery model for treating attention-deficit/hyperactivity disorder: a community-based randomized controlled trial. *J Am Acad Child Adolesc Psychiatry*. 2015;**54**(4):263–274. doi:10.1016/j.jaac.2015.01.009.
39. Sibley MH, Comer JS, Gonzalez J. Delivering parent-teen therapy for ADHD through videoconferencing: a preliminary investigation. *J Psychopathol Behav Assess*. 2017;**39**(3):467–485. doi:10.1007/s10862-017-9598-6da.
40. Biederman J, Fried R, DiSalvo M, et al. A novel digital health intervention to improve patient engagement to stimulants in adult ADHD in the primary care setting: preliminary findings from an open label study. *Psychiatry Res*. 2020;**291**:113158. doi:10.1016/j.psychres.2020.113158.
41. Fried R, DiSalvo M, Kelberman C, et al. An innovative SMS intervention to improve adherence to stimulants in children with ADHD: preliminary findings. *J Psychopharmacol*. 2020;**34**(8):883–890. doi:10.1177/0269881120908014.
42. Bemanalizadeh M, Yazdi M, Yaghini O, Kelishadi R. A meta-analysis on the effect of telemedicine on the management of attention deficit and hyperactivity disorder in children and adolescents. *J Telemed Telecare*. 2021;**11**:1357633X211045186. doi:10.1177/1357633X211045186.
43. Shaw P, Stringaris A, Nigg J, Leibenluft E. Emotion dysregulation in attention deficit hyperactivity disorder. *Am J Psychiatry*. 2014;**171**(3):276–293. doi:10.1176/appi.ajp.2013.13070966.
44. Antshel KM, Zhang-James Y, Faraone SV. The comorbidity of ADHD and autism spectrum disorder. *Expert Rev Neurother*. 2013;**13**(10):1117–1128.
45. Bélanger SA, Andrews D, Gray C, Korczak D. ADHD in children and youth: part 1—Etiology, diagnosis, and comorbidity. *Paediatr Child Health*. 2018;**23**(7):447–453. doi:10.1093/pch/pxy109.

46. Owens EB, Hinshaw SP. Adolescent mediators of unplanned pregnancy among women with and without childhood ADHD. *J Clin Child Adolesc Psychol*. 2020;**49**(2):229–238. doi:10.1080/15374416.2018.1547970.
47. Chang Z, Ghirardi L, Quinn PD, Asherson P, D'Onofrio BM, Larsson H. Risks and benefits of attention-deficit/hyperactivity disorder medication on behavioral and neuropsychiatric outcomes: a qualitative review of pharmacoepidemiology studies using linked prescription databases. *Biol Psychiatry*. 2019;**86**(5):335–343. doi:10.1016/j.biopsych.2019.04.009.
48. Sundquist J, Ohlsson H, Sundquist K, Kendler KS. Attention-deficit/hyperactivity disorder and risk for drug use disorder: a population-based follow-up and co-relative study. *Psychol Med*. 2015;**45**(5):977–983. doi:10.1017/S0033291714001986.
49. Dalsgaard S, Østergaard SD, Leckman JF, et al. Mortality in children, adolescents, and adults with attention deficit hyperactivity disorder: a nationwide cohort study. *Lancet*. 2015;**385**(9983):2190–2196.
50. Sun S, Kuja-Halkola R, Faraone SV, D'Onofrio BM, Dalsgaard S, Chang Z, Larsson H. Association of psychiatric comorbidity with the risk of premature death among children and adults with attention-deficit/hyperactivity disorder. *JAMA Psychiatry*. 2019;**76**(11):1141–1149. doi:10.1001/jamapsychiatry.2019.1944.
51. Dalsgaard S, et al. Effect of drugs on the risk of injuries in children with attention deficit hyperactivity disorder: a prospective cohort study. *Lancet Psychiatry*. 2015;**2**(8):702–709.
52. Fitzgerald C, Dalsgaard S, Nordentoft M, Erlangsen A. Suicidal behaviour among persons with attention-deficit hyperactivity disorder. *Br J Psychiatry*. 2019;**215**(4):615–620.
53. Barkley RA, Murphy KR, Fischer M. *ADHD in Adults: What the Science Says*. New York: Guilford Press; 2010.
54. Bihlar MB, Jokinen J, Bolte S, et al. Long-term outcomes of pharmacologically treated versus non-treated adults with ADHD and substance use disorder: a naturalistic study. *J Subst Abuse Treat*. 2015;**51**:82–90.
55. Chang Z, et al. Association between medications use for attention-deficit/hyperactivity disorder and risk of motor vehicle accidents. *JAMA Psychiatry*. 2019;**74**(6):597–603.
56. Chen MH, Pan TL, Hsu JW, et al. Attention-deficit hyperactivity disorder comorbidity and antidepressant resistance among patients with major depression: a nationwide longitudinal study. *Eur Neuropsychopharmacol*. 2023 May 1. doi:10.1016/j.euroneuro.2016.09.369.
57. Lichtenstein P, Halldner L, Zetterqvist J, et al. Medication for attention deficit-hyperactivity disorder and criminality. *N Engl J Med*. 2012;**367**(21):2006–2014.