



Brief Report: A Pilot Study Examining the Effects of PEERS® for Adolescents Telehealth for Autistic Adolescents

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Abstract

The COVID-19 pandemic sparked a worldwide transition to providing online services overnight, highlighting the urgent need for empirically supported telehealth interventions. The current study examined the effects of PEERS® for Adolescents Telehealth, an adaptation from the original social skills intervention developed for in-person provision, among 22 autistic adolescents and their caregivers. To evaluate the intervention, caregivers completed questionnaires assessing core autistic features and frequency of get-togethers. Adolescents completed questionnaires measuring social knowledge and frequency of get-togethers. Improvements in social skills knowledge, increased get-togethers, and decreased core autistic symptoms were evident. Preliminary results suggest PEERS® for Adolescents Telehealth improves social competence, as found for the in-person version. Further research exploring the equivalence of telehealth to in-person social skills intervention is recommended.

Keywords PEERS® · Telehealth · Social skills · Autism · Autistic · Adolescent · COVID-19

Introduction

Historically, the response to the needs of individuals with disabilities during emergencies has been insufficient (Center for Independence of the Disabled in New York, 2004), which can cause negative immediate and downstream consequences for this already underserved group. Thus, it is imperative that during the ongoing COVID-19 pandemic, medical and mental health practitioners continue to ensure the needs of members of the disability community are being met. Recent research has highlighted that autistic individuals and their families are experiencing a particularly high level of stress associated with the COVID-19 pandemic, in

large part due to lack of access to services that were previously available to these families prior to the COVID-19 pandemic (Manning et al, 2021). Because of the urgent need to deliver services to autistic youth and their families, medical and mental health communities have sought innovative ways to continue to provide services and support to families (degli Espinosa et al., 2020; Smile, 2020). Telehealth offers an avenue to provide necessary services while allowing for safe adherence to COVID-19 guidelines (e.g., social distancing) and increases accessibility for those with limited transportation or who lack appropriate service providers in their geographic area (Ellison et al., 2021).

While many caregivers of autistic youth reported a transition to telehealth and appreciated the continuation of services, some caregivers were concerned about a lack of effectiveness of telehealth (White et al., 2021). Although there is preliminary evidence that telehealth outcomes are at least equivalent to in-person services for autistic individuals (Ellison et al., 2021), it is important to continue to examine the effectiveness and efficacy of specific telehealth services for autistic youth. It is unclear how long social distancing guidelines will be advised, and even in a post-pandemic world, telehealth services may continue to provide expanded access

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to care, especially to families in rural and/or underserved areas (Antezana et al., 2017). Telehealth services mitigate additional time for travel to the site of therapy, which can increase the cost of receiving services. Moreover, it is of the utmost importance for the healthcare community to continue to provide telehealth services once the pandemic ends given that some patients and families prefer telehealth services and find them more effective (Pakyurek et al., 2010). Specifically, a study that interviewed autistic adults and their families found telehealth provided increased patient comfort due to avoiding travel, waiting rooms, and other sensory input, increased perception of safety by limiting contact with other patients, and equivalent or superior contact with providers compared to in-person office visits (Harris et al., 2021). Therefore, in light of this need for increased accessibility of services and expanding the evidence base of telehealth services, the current study evaluates outcomes of a telehealth intervention for autistic adolescents that targets social skills. As such, we aim to provide the autism community with an evidence-based evaluation of treatment effectiveness in order to support informed decision-making regarding whether to use in-person or telehealth services.

One pressing area of service need for autistic youth centers upon promoting social skills. Not only are social communication differences a core feature of autism spectrum disorder, but caregivers of autistic youth have also expressed concern that their children may lose important social skills due to a loss of services during the pandemic (Tokatly Latzer et al., 2021). Several in-person interventions have been identified to enhance social skills in autistic individuals and these vary in delivery method (e.g., direct instruction, Nuernberger et al., 2013; peer-mediated, Corbett et al., 2014; Koegel et al., 2013; Schmidt & Stichter, 2012), format (individual vs. group), location (school, community, or home), and length (Ke et al., 2018). Although there is a growing body of literature supporting the effectiveness of in-person social skills interventions (Gates et al., 2017; Hume et al., 2021), research on telehealth administration of social skills interventions is more limited. For example, only a few studies have found that parental instruction provided via telehealth results in increased social communication skills (Akemoglu et al., 2021; Baharav & Reiser, 2010; Hao et al., 2021; Meadan et al., 2016). Additionally, Cihon and colleagues' (2021) investigation of a telehealth administration of the Cool Versus Not Cool intervention found that the three children in the study achieved mastery of the program's seven steps, though only two exhibited generalization of these skills. These examinations of social skills interventions delivered via telehealth begin to explore the effectiveness of the format yet are primarily delivered to parents with younger children. To date, there is a lack of published research on social skills intervention delivered through telehealth directly to autistic adolescents.

The Program for the Enrichment and Education of Relational Skills (PEERS®; Laugeson & Frankel, 2010), in particular, has a robust and extensive evidence-base for delivery in-person. PEERS® has been found to increase social knowledge, social responsiveness, social skills, and get-togethers (Dolan et al., 2016; Laugeson et al., 2009, 2012; Mandelberg et al., 2014; Schohl et al., 2014). Amidst the COVID-19 pandemic, the PEERS® in-person curriculum was converted to a format compatible with telehealth delivery by the UCLA PEERS® Clinic. This conversion included utilization of a 16-week protocol that covers the same skills included in the original PEERS® for Adolescents over a slightly longer period of time, modifications to homework assignments to allow for virtual get-togethers between group members and virtual participation in extracurriculars, videos of role plays demonstrating the skills, and PowerPoint presentations of didactic content. While the telehealth administration of PEERS® offers many benefits, including adherence to social distancing guidelines, and increased accessibility for those with limited transportation or who lack service providers in their geographic area, the challenges of this format are equally important to consider. For example, telehealth administration of PEERS® may result in fewer interactions between participants, and virtual get-togethers and extracurriculars may be less effective than similar activities conducted in-person. Thus, it is essential to determine whether this more accessible intervention method of PEERS® is equivalent to in-person intervention.

Pilot data from conference presentations of PEERS® for Adolescents Telehealth are promising and have suggested comparable findings to in-person outcomes (Estabillo et al., 2021; Miyake et al., 2018). One pilot study found decreased problem behavior and increased social skills as measured by the Social Skills Improvement System (SSIS) and increased social responsiveness as measured by the Social Responsiveness Scale (SRS) (Miyake et al., 2018). However, this study included only five participants and used the 14-week protocol. Estabillo et al., (2021) used the 16-week protocol with five participants, finding improvements in social skills knowledge measured by the Test of Adolescent Social Skills Knowledge (TASSK) and number of parent-reported adolescent hosted get-togethers, measured by the Quality of Socialization Questionnaire (QSQ). However, they did not find significant change in social skills and problem behaviors via SSIS or social responsiveness via SRS. These two pilot studies offer some insight into the promise of telehealth delivery of PEERS® but require replication to confirm and expand upon findings with a larger sample.

To date, in-person delivery of PEERS® has extensive evidence demonstrating improvements in a variety of social domains in autistic individuals. The recent adaptation of PEERS® to a telehealth format in the context of the COVID-19 pandemic has provided an opportunity to

explore the effectiveness of this intervention delivered in a virtual format – a key step towards expanding access to care for autistic youth and families. The current study aims to examine the effects of the PEERS® for Adolescents Telehealth intervention on core social domains, including autistic features, get-togethers, and social knowledge. We hypothesize that (1) caregivers will report a decrease in their adolescents' observed autistic features, (2) adolescents will increase their knowledge of social skills, and (3) caregivers and adolescents will report an increase in the amount of get-togethers. Given the novelty of this intervention offered via telehealth, and limited published literature in this area, this investigation offers a unique opportunity to examine the effectiveness of PEERS® as a telehealth intervention for autistic individuals.

Methods

Participant Recruitment and Eligibility

Thirty-four families were recruited for participation in PEERS® for Adolescents Telehealth through the Marquette Autism Project, the Autism Society of Southeastern Wisconsin, referrals from local mental health professionals, and recommendations from families who had previously completed the program. Interested families completed a brief, online screening questionnaire. For those meeting screening criteria, an online intake appointment was conducted to gather additional information and further determine eligibility. To be included in the study, adolescents must have had (1) documentation from a medical or mental health professional indicating a diagnosis of autism spectrum disorder and an IQ at or above 70, (2) expressed interest in participating in the program, (3) caregiver and adolescent willing and able to attend sessions for the full 16 weeks, and (4) access to reliable Wi-Fi and at least two computing devices.

Procedure

To prioritize the safety of participants and staff during the COVID-19 pandemic, and because data collection and intervention provision occurred prior to the widespread availability of vaccines for COVID-19, the entire study procedure took place virtually. Data collection and intervention provision were collected from three PEERS® telehealth cohorts: one in fall of 2020, spring of 2021, and fall of 2021. A set of questionnaires was emailed or mailed to families and completed by adolescents and their caregivers at two timepoints: once within one week of the start of the intervention and again one week after the intervention had concluded. Families returned questionnaires via mail or email.

The PEERS® intervention was delivered to participants via teleconferencing platforms (i.e., Microsoft Teams and Zoom), using materials (e.g., PowerPoint presentations and role play videos) provided by UCLA's PEERS® Clinic. Groups were co-facilitated by pairs of graduate students in a clinical psychology Ph.D. program, of which three are certified PEERS® Telehealth providers. All graduate students have extensive experience in research, diagnostic, and clinical practice in autism, and completed coursework in child and adult therapy. Graduate students were supervised by a licensed clinical psychologist with expertise in neurodevelopmental conditions who was also a certified PEERS® Telehealth provider. Fidelity was managed in-vivo through observation by undergraduate research assistants and graduate student co-leaders whose role was to follow along with the manual and powerpoint and alert the leader to any missed information. Live observation of every teen session was conducted by the senior author who is a certified PEERS® provider to maintain protocol adherence. Undergraduate research assistants acted as "behavioral coaches" who assisted with documentation of homework and participation, served as social partners during behavioral rehearsal, and helped with behavioral management. The teen and caregiver groups met on separate videoconferencing accounts for concurrent, weekly 90-min session for 16 weeks. All families missed no more than 3 sessions. Core intervention components included didactic instruction on various social skills (e.g., how to have a two-way conversation, how to be a good sport, etc.), viewing role play videos and discussing perspective taking questions, engaging in behavioral rehearsals with social coaches in breakout rooms, and homework (e.g., practice trading information with another member of the group, practice good sportsmanship skills during gym class at school or a family game night, etc.). Many skills were expanded to include specifics of using the skill in an online platform. For example, adolescents learned how to enter a group conversation online. Additionally, homework assignments related to the didactic content were altered to minimize in-person contact. For example, teens were allowed to host or attend *virtual* get-togethers rather than in-person get-togethers. During these virtual get-togethers, online games were typically utilized to facilitate peer engagement. Additionally, in-group phone calls were assigned throughout the *entire* intervention rather than only the first few weeks to further promote distanced social interactions given that many teens were not attending in-person school during the study and opportunities for in-person social contact were very limited. For further details on telehealth compared to in-person administration of the intervention, see Table 1.

Table 1 Curriculum Adaptations for PEERS® for Adolescents Telehealth

Intervention component	In-person	Telehealth adaptations
Platform	<ul style="list-style-type: none"> • Meeting in-person 	<ul style="list-style-type: none"> • Meeting via Zoom/Microsoft Teams
Program length	<ul style="list-style-type: none"> • 14 weeks 	<ul style="list-style-type: none"> • 16 weeks • Change in order of lessons
Homework assignments	<ul style="list-style-type: none"> • Lessons on teasing/bullying span 2 sessions • Host in-person get-togethers • No get-togethers with other group members permitted during program • In-person extracurricular weekly activity • Teen group: Reviewed with entire group at start of session 	<ul style="list-style-type: none"> • Lessons on teasing/bullying span 4 sessions • Host virtual (or in-person) get-togethers • In-group get-togethers (with phone calls) assigned for last 7 weeks* • Virtual or in-person extracurricular weekly activity • Teen group: Reviewed in breakout rooms by dividing group in half*
Didactic lesson	<ul style="list-style-type: none"> • Write out rules/strategies on whiteboard 	<ul style="list-style-type: none"> • Use Powerpoints provided by UCLA • Additional skills include: beginning/ending video chats, entering/exiting virtual conversations, virtual get-togethers
Role Plays	<ul style="list-style-type: none"> • Live role plays by group co-leaders 	<ul style="list-style-type: none"> • Watch pre-recorded videos provided by UCLA
Behavioral rehearsal	<ul style="list-style-type: none"> • Small group practice in separate rooms or separate areas of a large room 	<ul style="list-style-type: none"> • Small group practice in breakout rooms
Checkouts	<ul style="list-style-type: none"> • Brief discussion with family in the hallway or separate areas of a large room 	<ul style="list-style-type: none"> • Brief discussion with family in breakout rooms

Changes to telehealth delivery of the intervention were a result of recommendations made by UCLA or decisions by our research team to best serve participating families

*Decisions made by our research team

Measures

The Social Responsiveness Scale (SRS) is a commonly used 65-item caregiver-report questionnaire that measures autistic characteristics, including social and communication difficulties (Constantino et al., 2003). This questionnaire generates a Total score along with five treatment subscale scores (Social Awareness, Social Cognition, Social Communication, Social Motivation, and Autistic Mannerisms), although subscales are not supported by factor analysis and therefore are not utilized in this study. Caregivers rate each item on a Likert scale of 1 (*not true*) to 4 (*almost always true*), to reflect their child's behavior over the past 6 months. The SRS has acceptable psychometric properties (Constantino et al., 2003). Inter-item correlation for the Total score used in the present study was high (Cronbach's $\alpha = 0.95$).

The Quality of Socialization Questionnaire (QSQ) is a 3-item measure that captures how often teens host and attend get-togethers (example item: "how many get-togethers were organized by your teen in the past month?"; Laugeson & Frankel, 2010). Adolescents and caregivers each complete parallel version of the revised QSQ (i.e., QSQ-A-R and QSQ-P-R). These forms were originally adapted from the Quality of Play Questionnaire (QPQ) which was designed for autistic children (Frankel & Mintz, 2011). Consistent with prior research (McVey et al., 2016; Schohl et al.,

2014), a composite of total invited and hosted get-togethers was created and used in analyses. Virtual and in-person get-togethers were not distinguished on the QSQ. The QSQ also has a conflict scale that was not included in the present analyses.

Adolescents also completed the Test of Adolescent Social Skills Knowledge (TASSK). The TASSK is a 30-item face-valid self-report measure that was developed to assess the efficacy of the PEERS® intervention (Laugeson et al., 2010). This measure contains questions related to the specific social skills and topics covered in the PEERS® didactic content; the Total score was analyzed.

Statistical Analysis

Descriptive statistics, histograms, and boxplots were conducted to examine each variable's distribution. Four extreme datapoints on the QSQ-P-R and one on the QSQ-A-R were identified and winsorized to the next highest value. After winsorization, all variables were found to be within normal limits. Paired sample t-tests were performed on the adolescent and caregiver outcome variables to examine change from pre- to post- intervention. Due to the small sample, a combination of null-hypothesis significance testing (NHST) and examination of effects sizes was used to interpret results. Power analyses conducted using G*Power 3.1 indicated that this study is sufficient powered to detect large effect sizes.

Results

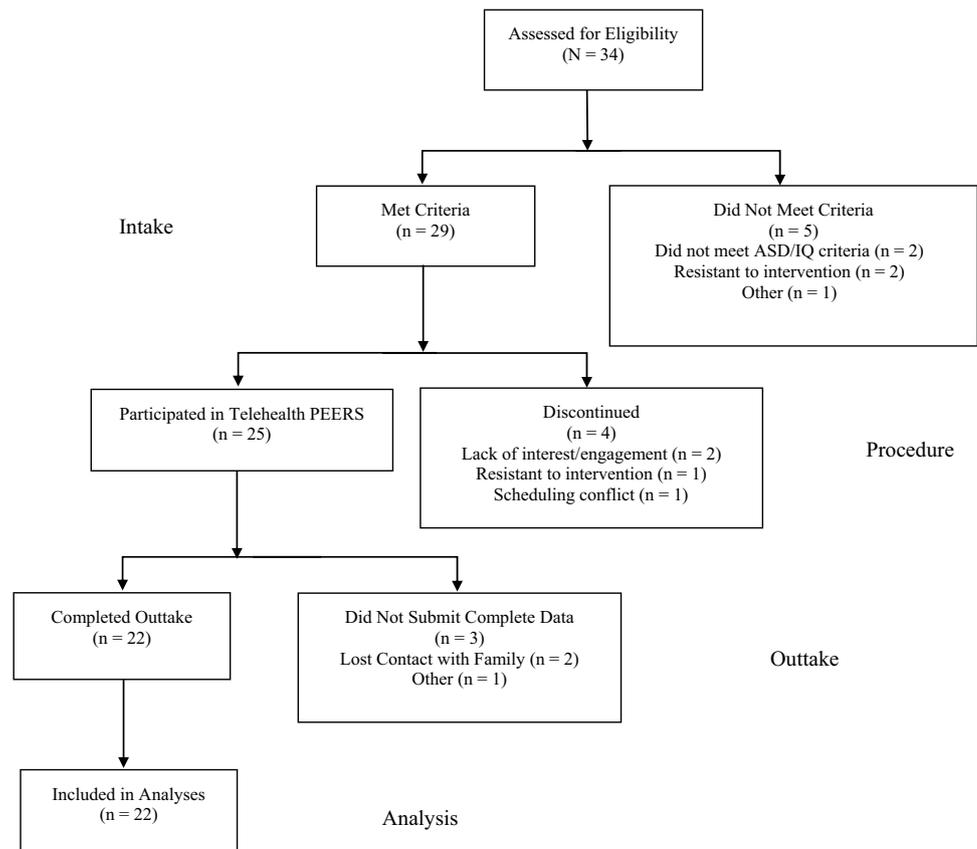
SPSS 27.0 was used to conduct all analyses. Of the 34 families recruited, 29 adolescents were eligible to participate in the study along with their caregiver(s), and of these, 25 adolescents completed the full intervention (Fig. 1). Four families were eligible but discontinued participation partway through the program due to resistance to intervention, lack of interest/engagement, or scheduling conflict. Of the 25 families who completed the full intervention, three families submitted incomplete data. Complete pre- and post-intervention data were available for 22 families. There was no significant difference in demographic variables between participants with complete data ($n=22$) and those with incomplete data ($n=6$; no demographic information was available for one family) based on a t -test comparing age ($p > 0.05$) and chi-square tests comparing sex, race, ethnicity, income, and primary caregiver education ($p > 0.05$). Table 2 presents demographic variables for participants included in data analysis. The sample was 85% male, 86% White, and aged 11–17.

Analyses confirmed decreases in core autistic symptoms as measured by the SRS (Total score), $t(21)=5.511$, $p < 0.001$, $M_{pre} = 104.14$, $SD_{pre} = 27.21$, $M_{post} = 86.77$, $SD_{post} = 27.42$ with a large effect size (Cohen's $D = 1.18$).

Table 2 Sample demographics

	$n=22$ $M (SD)$
Age (years)	14 (1.50)
Sex (% male)	86
Race (%)	
Asian/Asian-American	9
Black/African-America	5
White/European-American	86
Ethnicity (%)	
Non-Hispanic	77
Unreported	23
Household Income (%)	
50,000–75,000	9
75,000–100,000	14
Over 100,000	77
Primary Caregiver Education (%)	
High School Diploma	5
Vocational/Technical Degree	5
Bachelor's Degree	14
Master's Degree	54
Doctoral Degree	18
Unreported	4

Fig. 1 CONSORT recruitment diagram



Significant change was reported by caregivers regarding total invited and hosted get-togethers, as measured by the QSQ-P-R, $t(20) = -5.651$, $p < 0.001$, $M_{pre} = 0.76$, $SD_{pre} = 1.37$, $M_{post} = 5.48$, $SD_{post} = 3.31$ with a large effect size (Cohen's $D = 1.23$). Adolescents also reported a significant increase in total invited and hosted get-togethers on the QSQ-A-R, $t(20) = -5.975$, $p < 0.001$, $M_{pre} = 1.24$, $SD_{pre} = 1.73$, $M_{post} = 4.95$, $SD_{post} = 2.94$ with a large effect size (Cohen's $D = 1.30$). Adolescents significantly improved in knowledge of PEERS® concepts and friendship skills as measured by the TASSK, $t(20) = -5.831$, $p < 0.001$, $M_{pre} = 14.86$, $SD_{pre} = 2.97$, $M_{post} = 21.24$, $SD_{post} = 3.25$, and demonstrated a large effect size (Cohen's $D = 1.27$). Statistical analyses are further represented in Table 3.

Discussion

The COVID-19 pandemic required many service providers to pivot to telehealth to continue providing necessary care for autistic youth and their families. Although there has been an explosion of new research on a variety of telehealth services for ASD (Ellison et al., 2021), there is a striking lack of research examining telehealth social skills interventions with a majority being delivered to parents of young children. The present study extends the preliminary promising evidence supporting the effects of the in-person social skills intervention, PEERS® for Adolescents, in a telehealth format. Results of this study supported the hypotheses and reflect a pattern of similar results compared to studies of the original in-person PEERS® for Adolescents (Laugeson et al., 2012; Schohl et al., 2014). More specifically, this study's findings indicate that PEERS® for Adolescents Telehealth has significant effects on social competence in autistic adolescents, by showing a decrease in parent-report of core autistic symptoms, as well as an increase in adolescent knowledge of PEERS® concepts and friendship skills, and an increase in number of get-togethers. These findings are a promising addition to the current state of research, as they provide evidence to suggest telehealth delivery of a social skills program designed for adolescents demonstrates similar results compared to previously published results from

the in-person delivery of the same intervention (Laugeson et al., 2009, 2012; Mandelberg et al., 2014; Schohl et al., 2014). Furthermore, with many autistic people and their families expressing a desire for continued telehealth access, this research offers a timely response to the preference for sustained access to an evidence-based intervention.

Given that this intervention was delivered during the COVID-19 pandemic, in addition to delivering the content of PEERS® via telehealth, this iteration of PEERS® via telehealth also allowed for and promoted additional social opportunities outside of group, during a time when most participants were neither attending in-person school nor activities or were not comfortable having in-person get-togethers. For example, get-togethers could be held online, in-group phone calls were continued throughout the intervention, and the "source of friends/extracurricular activity" could be an online group. Therefore, specific examples were added to the didactic and behavioral portion of the intervention to focus on practical social skills for online interaction, such as out to begin an online conversation and how to host an online get-together. While these adaptations for COVID-19 may have inflated the post-intervention numbers of get-togethers compared to groups conducted prior to the pandemic, these adjustments may have also provided additional opportunities to practice and refine skills. Virtual get-togethers offer additional opportunities for social communication with other people who have similar common interests without geographical distance posing a barrier to social connection. Additionally, it is also possible that online get-togethers and social activities are easier to access and less anxiety-provoking for autistic youth. This may suggest that telehealth, as a whole, may be more beneficial for some individuals. Aligning with preferences for telehealth expressed by autistic adults (Harris et al., 2021), it appears that telehealth appointments have the potential to decrease social demands placed on patients by limiting the number of steps required to start a conversation, less need to make eye contact, and the ability to use the chat function instead of verbal communication if desired. However, these platforms may not support the same quality of social connections as in-person activities. Future work should explore whether, given the potential benefits and challenges conferred by online gatherings, these options

Table 3 Paired Samples t-test Results Comparing Pre- and Post-PEERS® Measures

	Pre-test		Post-test		Paired <i>t</i> test			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i> -value	<i>df</i>	<i>p</i> -value (two-tailed)	Cohen's <i>d</i>
SRS total	104.77	27.21	86.77	27.42	5.511*	21	<.001	1.18
QSQ-A-R	1.24	1.73	4.95	2.94	-5.975*	20	<.001	1.30
QSQ-P-R	.76	1.37	5.48	3.31	-5.651*	20	<.001	1.23
TASSK	14.86	2.97	21.24	3.25	-5.831*	20	<.001	1.27

* $p < .001$

should be incorporated into future in-person offerings of PEERS®. For example, the QSQ would be adapted to capture the number of get-togethers that occurred virtually or in-person. Given the success of this virtual implementation of PEERS®, future studies may wish to consider offering hybrid options, including a combination of the traditional in-person instruction and practice, as well as instruction on the additional online skills with online social practice.

The present study has limitations that should be carefully considered when interpreting our findings. First, this was not a randomized controlled trial; all participants who agreed to be a part of the study were placed in the intervention. Demand characteristics and face-valid measures may have impacted participants' responses on questionnaires post-intervention; that is, given that participants were aware of the goals of the intervention and their placement in the active treatment, cognitive processes may have biased reports of functioning after treatment. Therefore, the results should be interpreted with caution as they are not analyzed in comparison to a waitlist control group. Future work should focus on the implementation of a randomized controlled trial of PEERS® for Adolescents Telehealth and analyze the results in comparison to in-person provision of PEERS® for Adolescents. The current sample of telehealth data was not large enough to compare to in-person RCT data collected by our team prior to the COVID-19 pandemic. However, our team aims to continue to collect telehealth data to serve that purpose. Additionally, despite the small sample size analyzed, results have substantially large effect sizes, indicating promise of these preliminary findings. It is also important to note that all participants lived in southeastern Wisconsin. Additional research on a broader geographic area, especially considering varied COVID-19 restrictions on social gathering, could highlight differences in opportunities for practice of social skills. Future work can also expand upon what communities are benefitting from the expansion to telehealth, and if there are demographic differences indicating enhanced accessibility or inclusion; the current sample does not appear to have any stark differences in demographics compared to previously published work (Laugeson et al., 2009, 2012; McVey et al., 2016; Schohl et al., 2014), although empirical exploration with larger samples is warranted. Further, the COVID-19 pandemic may have limited the generalizability of this research due to the potential that social distancing and virtual school options may have decreased social demands placed on participants, which may have lowered general stress and impacted parent-reported changes. Although opportunities for in-person socialization likely decreased due to the pandemic, perhaps reducing a source of stress, the sudden shift to and novelty of engaging with peers virtually, with masks, or under social distancing guidelines may have created new social demands and stress. It is also unclear if feelings of stress,

isolation, or uncertainty, which may be associated with the global pandemic, influenced the families' experience in the intervention. The exact mechanisms or extent to which this occurred is unknown. Also, the present study focused on core social outcomes of PEERS® immediately after the intervention. Future work should strive to continue to follow-up on longer-term outcomes and explore other variables that have been found to improve over the course of the PEERS® intervention, including but not limited to, depression (Schiltz et al., 2018), social anxiety (Schohl et al., 2014), and parental stress (Karst et al., 2015). Finally, it is important to note the limitation that no stakeholder feedback was collected for this sample. The value of the perspectives of autistic participants and their families cannot be overstated, and therefore, our team plans to explore measures of treatment acceptability in future studies. However, it appears that attrition rates are comparable to the in-person delivery of PEERS® (McVey et al., 2016; Schohl et al., 2014); two of the four cohorts experienced no participant dropouts. This may suggest a favorable view of the intervention, but requires further exploration of targeted stakeholder feedback in the future. Anecdotally, it is notable that recruitment for participation in the telehealth intervention presented unique challenges compared to in-person groups; some families specifically requested to stay on the waitlist for in-person groups due to attentional, behavioral, or screentime burnout concerns that would make telehealth participation difficult for their adolescent. Our team hopes that this study addresses the misconception that many families understandably hold regarding the inequivalence of telehealth intervention to in-person intervention (White et al., 2021) by demonstrating evidence for the effectiveness of PEERS® for Adolescents Telehealth.

In conclusion, this study adds to the growing body of literature on the effects of telehealth interventions for autistic people, as well as the empirically-supported outcomes of the PEERS® intervention. Our findings showcase the potential for PEERS® to be delivered via telehealth to maximize access to evidence-based intervention for the autistic community.

Author Contributions EJA, HKS, and AVVH contributed to study conception and design. All authors were involved in data collection under the research supervision of AVVH. Data entry and management were supervised by SAL and EJA. Data analyses and interpretation were performed by EJA with support from HKS and AVVH. The first draft of the manuscript was written by EJA, HKS, DMG, SAL, SKP, and RES. All authors read and approved the final manuscript.

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Declarations

Conflict of interest All authors declare they have no conflict of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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