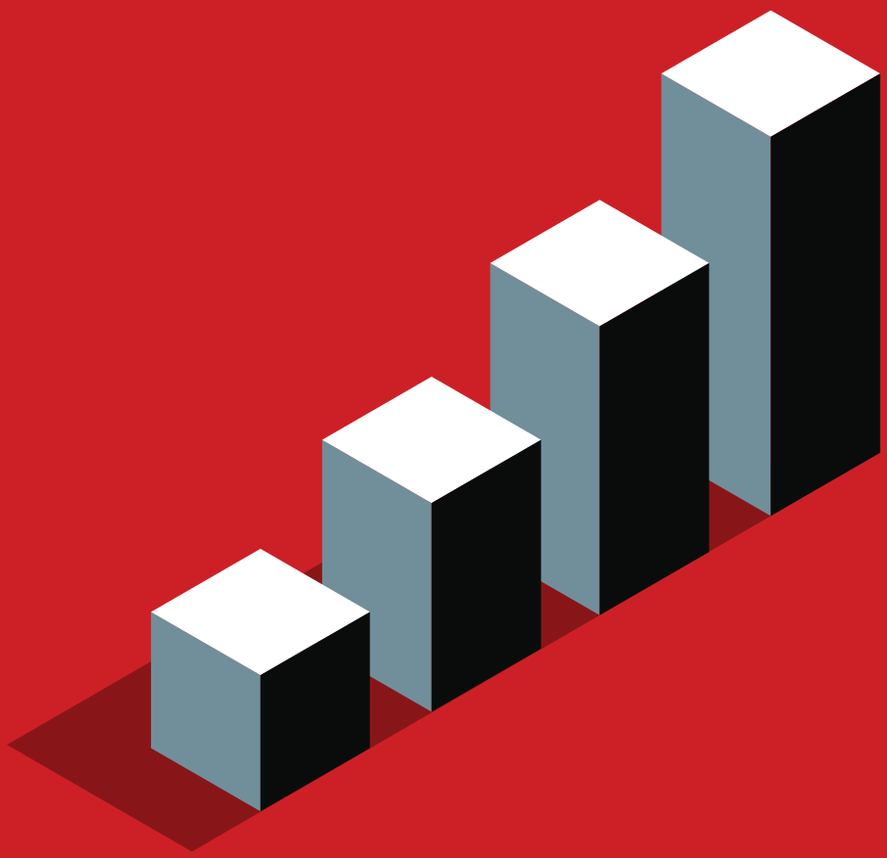
DEE ENDOWED PROFESSORSHIP

Impact Report

Dr. Aaron Fischer 2018–2023



College of Education
THE UNIVERSITY OF UTAH

Dee Endowed Professorship

August 2018

@theU

The College is pleased to announce the new Dee Endowed Professorship in School Psychology. The recipient of this award is Dr. Aaron Fischer, Assistant Professor in School Psychology. This is the first endowed professorship in the College. It is made possible by a generous donation from the Tim and Candace Dee family.

After earning a Ph.D. in School Psychology from the U in 1998, Candace served as a school psychologist for the Jordan School District and as an adjunct professor and supervisor. Dr. Dee and her husband, Tim Dee, have given generously over the years in support of scholarships for school psychology students and faculty and student research. We were delighted to learn that the Dees were interested in supporting the inaugural endowed professorship in our college. This professorship is intended to recognize faculty for their scholarship while promoting the recruitment and retention of outstanding scholars in School Psychology.

Left: *Tim D. Dee III & Dr. Candace Cartwright Dee ('98)*

Endowed professorships help achieve and maintain excellence at universities. These positions are a lasting tribute to the donor and to the outstanding faculty member who holds the endowed professorship and their successors. The Dee Endowed Professorship in School Psychology will tremendously benefit the program, department, college, and campus community for generations to come. Like other endowed professorships and chairs on campus, this endowed position has a five-year term. Award recipients must be nominated by the Senior Vice President for Academic Affairs, and the President of the University makes the award. The "endowed" part of an endowed professorship means that a permanent fund has been established, and the recipient may utilize the annual earnings in support of scholarly pursuits.

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Dean's Letter

September 1, 2023

Tim D. Dee III
Dr. Candace Dee
1575 Devonshire Dr.
Salt Lake City, UT 84108

Dear Tim and Candy,

It is with great pleasure and deep appreciation that I extend to you my heartfelt thanks for creating the Dee Endowed Professorship in the Educational Psychology Department here at the College of Education. As our inaugural Dee Endowed Professor's term ends, I am pleased to present you with this commemorative impact report celebrating Dr. Aaron Fischer's research, achievements, and activities since ascending to the endowed professorship in 2018.

An endowed professorship is one of the highest academic awards a university can bestow on a faculty member; it lasts as long as the institution exists. Thus, it is both an honor to the named holder of the appointment and an enduring tribute to the donors who established it—to you both. As Dean, I know endowed faculty professorships are essential to recruiting and retaining the highest-quality faculty and attracting the brightest students. With your creation of the Dee Endowed Professorship, the future is brighter in the College of Education. We are deeply grateful you chose us to receive this significant gift. With your financial contribution and others, we are enhancing our educational programs, elevating our research in the field of school psychology, and extending the College's reach into our community in extraordinary ways.

It is my goal to establish more endowed professorships like yours. Each new endowed professorship will further strengthen our vibrant academic community, advance teaching and learning, and drive our vital research enterprise forward. But the Dee Endowed Professorship will always be the first. It will always hold a significant place in the College's history. It is clear that you care deeply about the world around you; your choice to create this endowment reflects your commitment to our students and faculty and your support of research, scholarships, and transformative programming.

I look forward to meeting with you sometime this fall to get to know you both better and learn more about your time as a practicing school psychologist, Candy. I will reach out to you in October to find a good time for us to meet.

Warmest regards,

Frankie Santos Laanan
Dean

A First in the College of Education

August 17, 2018

By: Janelle Hanson

@theU

When the call came to report to the dean's office, Aaron Fischer wasn't sure why he was being asked to the face-to-face meeting. Was something amiss? Was he in trouble? Far from it. Much to his surprise, Fischer learned he is the inaugural recipient of the Dee Endowed Professorship in School Psychology—the first endowed professorship in the College of Education.

"It was a huge surprise," said Fischer, an assistant professor in school psychology. "I am incredibly honored. It was a huge validation for the work I am doing at the U and where my ideas are taking me. These funds will enhance my research by giving me considerable opportunities to purchase contemporary technology, ultimately allowing me to pursuing creative leaps in my work that would otherwise be impossible."

A donation from the Candace and Tim Dee family made the endowment to the college's Department of Educational Psychology possible. Candace Dee earned a doctorate in school psychology from the U in 1998 and served as a school psychologist for the Jordan School District. She also was an adjunct professor and supervisor.

Fischer calls Candace Dee the department's "No. 1 advocate." Endowed professorships make it possible for the university to establish a lasting tribute to donors and to recognize and retain outstanding faculty scholars such as Fischer.

"As the college dean and former professor of Dr. Candace Dee, I am deeply appreciative of the generous contribution made by Candace and her husband, Tim Dee, to establish the first endowed professorship in the College of Education," said Elaine Clark. "Aaron Fischer epitomizes the work for which this honor is intended. He has demonstrated a high level of scholarly productivity and achievement as well as a strong commitment to the preparation of school psychologists, researchers and academicians."

Fischer's research is focused on integrating technology into psychological practice in schools and in pediatric medical settings. He has recently looked at the effectiveness and acceptability of psychological consultation services delivered through video conferencing, modeled after telehealth practices. In a recent journal article, he reported research results showing the telehealth model can effectively expand access to school psychology consultants—which makes it a good tool for bridging geographic distance and providing service to underserved areas.

Fischer is in the fifth year of a study assessing the technology's acceptability and effectiveness in changing student behavior in three Utah school districts. The research makes use of a telepresence robot—just like the one Andy set up in a "Modern Family" episode so Phil didn't miss a family event.

"This generation of kids is completely comfortable with technology," Fischer said. "Once they figure out they can't take pictures or play games with it, it becomes just a piece of technology in the room."

Using the robot, Fischer and his graduate students are able to consult with teachers who are working with students to manage emotional or problem behavior. Over the course of the study, the technology has allowed Fischer and his team to work with more than 200 students and 100 teachers or paraprofessionals.

Understanding how video conferencing works is particularly important as it may help school districts overcome a national short of school psychologists. The shortage is problematic, Fischer said, given the growing need for mental health services due to abuse, neglect, poverty, anxiety and a sense of alienation among youth.

A local example of the need: The Jordan School District has decided to place a full-time school psychologist in each of its 36 elementary schools, a move driven by concern about students' mental health.

Below: *Elaine Clark, Dean in 2018, and the Dee's signing the gift agreement.*

Summary of Annual Activities

FY2019 Dee Endowment Report

July 1, 2018–June 30, 2019

Dear Candy and Tim:
It is my pleasure to submit the following report on the inaugural year of the Dee Endowed Professorship in School Psychology. 2018-2019 has been a productive year largely due to the support afforded to me through your endowed professorship-I am so grateful.

Integral to my research productivity is the ability to fund and support graduate students through research assistant positions and other opportunities where they can gain hands on experience in our field. Your support allows me to hire School Psychology students to carry out critical work in research, training, consultation and clinical practice. This is invaluable experience for the students and their appreciation mirrors mine.

During the first year of this amazing honor, I used your funding to support several research initiatives including:

Activities in Utah's public elementary schools. In elementary schools we used funding to support our teleconsultation research in Washington County schools. Specifically, school psychology research assistants evaluated a distance education model for training special education teachers and paraprofessionals. We hope to expand this work to parents across Utah during the coming year. Additionally, we were able to grow our capacity to provide services across those settings–seeing 30 more teachers and paraprofessionals. This increase in access allowed for higher retention of school staff.

Work at the interdisciplinary pediatric feeding disorders clinic on the U of U's campus. We expanded services from those individuals with an ASD diagnosis to those without. With this expansion we are able to reach families across Utah who have typical feeding problems, like food selectivity (e.g. picky eating). Additionally, we were able to grow our capacity to provide services to an additional 10 clients.

Physiological monitoring of youth anxiety during cognitive-behavioral treatment for food selectivity. In a new contemporary research project we provided the *Coping Cat* intervention to three elementary age youth who had avoidant restrictive food intake disorder (e.g. picky eating). Using this intervention with feeding-specific anxiety was novel. Across the course of this intervention we used Fitbit devices to monitor heart rates. Our goal was to further validate *Coping Cat* for feeding problems while exploring the use of physiological monitoring as a way to monitor progress.

A web-based voice assistant platform. I worked with a school psychology graduate student to develop a web-based voice assistant platform (e.g., Siri, Alexa) to support teachers to learn and implement the good behavior game. We piloted the platform in 2018-19 and will test it with teachers in Granite School District this upcoming school year.

Teleconsultation project expanded to multiple classrooms in Washington County. We provided support to special education teachers across the district. Specific to this project, funds from the endowment supported travel and technology (hardware) support for the telepresence robots used.

In the year ahead I will continue to conduct innovative research. My plan includes acquiring additional equipment and hiring school psychology students as research assistants to help with current, ongoing, and planned research. I will also allocate a large portion of the funds to initiate a new line of research targeting the use of virtual reality in training, consultation, and coaching of school psychologists and teachers. Throughout all of my work I will continue to strive to influence positive changes for student behavior and mental health and for the advancement of School Psychology as a field.

Thank you again for the continued support you show the U, the College of Education, the School Psychology program, and me. Words fail me when I try to express the true extent of my gratitude as holder of Dee Endowed Professorship, a truly distinguished honor.

Sincerely,
Aaron J. Fischer, PhD, BCBA-D, LP, LBA
Dee Endowed Professor of School Psychology | Department of Educational Psychology, Adjunct Assistant Professor of Child Psychiatry | Department of Psychiatry, University of Utah

FY2020 Dee Endowment Report

July 1, 2019–June 30, 2020

Dear Candy and Tim:
It is my pleasure to submit the following report on the second year of the Dee Endowed Professorship in School Psychology. 2019-2020 has been an uncertain time, with social, educational, and public health concerns at the forefront of our minds. As part of the physical distancing required due to COVID-19, the need for telehealth services was critical, and the work I've conducted the past six years has been brought to the forefront of education and psychological research and practice. My lab was able to continue to conduct telehealth services and meet critical shortages in schools—providing a variety of mental health and behavioral supports to youth and their families across Utah. The backing available through the endowment allowed me to provide access the some of the most marginalized students, both through direct and indirect service provision, but also through lending of devices such as an eReader.

Besides the immediate impact on the community, the funding from the endowment is integral to my research productivity and my ability to fund and support graduate students through research assistant positions and other opportunities where they can gain hands on experience in our field. Your support allows me to hire School Psychology students to carry out critical work in research, training, consultation and clinical practice. This is invaluable experience for the students and their appreciation echoes mine.

During the second year of this amazing honor, I used your funding to support several research and community practice initiatives including:

Activities in Utah's public elementary schools. In elementary schools we used funding to support our teleconsultation research in Washington County schools and expanded, due to COVID-19, to all of our other projects. Specifically, we continued to evaluate a distance education model for training for general and special education teachers, and paraprofessionals. We also expanded this work to parents across Utah (and worldwide) through the use of remote learning for parent social media campaigns (Remote Learning Resources).

Work at the interdisciplinary pediatric feeding disorders clinic on the U of U's campus. We continued to expand services to individuals without autism spectrum disorder. With this expansion we are able to reach families across Utah who have typical feeding problems, like food selectivity (i.e., picky eating). Additionally, we were able to grow our capacity to provide services across those settings

Technology driven interventions and consultation. I worked with a school psychology graduate student, and Instructional Design and Educational Technology faculty to develop a web-based voice assistant platform (e.g., Siri, Alexa) to support teachers to learn and implement the good behavior game. We will be testing, as part of a dissertation, with teachers in Granite School District in 2020-2021.

Innovative research using virtual reality (VR) simulation training for parents and educators. This project specifically targets classroom and home-based behavior management and social emotional supports for youth with behavior and social-emotional difficulty. We purchased two VR headsets and prepared multiple IRBs; however, due to COVID-19, we were unable to execute this research with human subjects, but plan to do so as soon as research restrictions are lifted. Some other areas on campus are collaborating on this work include VR training for dental students, psychiatry residents, and trauma surgery residents.

In the year ahead, I will continue to conduct VR and telehealth research for educators and caregivers. Since I was unable to spend funds as intended, I will have available carryover funds that will be used to develop an artificial intelligence VR simulation that creates novel scenarios for training and provides robust performance feedback. This work will be in collaboration with the computer science and electronic arts and entertainment departments on campus and my plan includes acquiring additional equipment (including augmented reality headsets and additional VR headsets) and hiring research assistants to help with the current, ongoing, and planned research in these areas. Throughout all of my work I will continue to strive to influence positive changes for student behavior and mental health, particularly those who are most marginalized, and for the advancement of the School Psychology profession as a leader in service provision for youth and their families.

Thank you again for the continued support you show the U, the College of Education, the School Psychology program, and me. Words cannot express the true extent of my gratitude as recipient of the Dee Endowed Professorship, a truly distinguished honor.

Sincerely,
Aaron J. Fischer, PhD, BCBA-D, LP, LBA
Dee Endowed Professor of School Psychology | Department of Educational Psychology, Adjunct Assistant Professor of Child Psychiatry | Department of Psychiatry, University of Utah

FY2021 Dee Endowment Report

July 1, 2020–June 30, 2021

Dear Candy and Tim:
It is my pleasure to submit the following report on the third year of the Dee Endowed Professorship in School Psychology. The 2020-2021 academic year continued to be an uncertain time, with social, educational, and public health concerns at the forefront of our minds. The ongoing need for telehealth services was critical, and the work I've conducted the past seven years continues to be used across education and psychological research and practice. My lab continued to conduct telehealth services and meet critical shortages in schools—providing a variety of mental health and behavioral supports to youth and their families across Utah. The backing available through the endowment allowed me to provide access to some of the most marginalized students, both through direct and indirect service provision, but also through lending of devices.

Besides the immediate impact on the community, the funding from the endowment is integral to my research productivity and my ability to fund and support graduate students through research assistant positions and other opportunities where they can gain hands on experience in our field. Your support allows me to hire School Psychology students to carry out critical work in research, training, consultation and clinical practice. This is invaluable experience for the students and their appreciation echoes mine. Further, I was recently promoted to associate professor and tenured—a major professional accomplishment I would not have been able to achieve if it were not for all your support in the work that we do in my lab. Follow this link for descriptions of projects: https://www.u-tteclab.com/project-descriptions.html.

During the third year of this amazing honor, I used your funding to support several research and community practice initiatives including:

Activities in Utah's public elementary schools. In elementary schools we used funding to support our teleconsultation research in Washington County schools and expanded, due to COVID-19, to all of our other projects. Specifically, we continued to evaluate a distance education model for training for general and special education teachers, and paraprofessionals. We also expanded this work to parents across Utah (and worldwide) through the use of remote learning for parent social media campaigns (Remote Learning Resources) and a webinar series on a variety of topics: https://www.u-tteclab.com/20-21-u-ttec-webinar-series.html.

Work at the interdisciplinary pediatric feeding disorders clinic on the U of U's campus. We continued to expand services to individuals without autism spectrum disorder. With this expansion we are able to reach families across Utah who have typical feeding problems, like food selectivity (i.e., picky eating). Additionally, we were able to grow our capacity to provide services across those settings and or marketing for the clinic.

Innovative research using virtual reality (VR) simulation training for parents and educators. This project specifically targets classroom and home-based behavior management and social emotional supports for youth with behavior and social-emotional difficulty. We own VR headsets and prepared multiple IRBs; and began data collection on preliminary studies as we move to develop the simulation during the 2021-2022 year.

In the year ahead, I will continue to conduct VR and telehealth research for educators and caregivers. I plan to use available carryover funds to develop an artificial intelligence VR simulation that creates novel scenarios for training and provides robust performance feedback. This work will be in collaboration with the computer science and electronic arts and entertainment departments on campus and my plan includes acquiring additional equipment (including augmented reality headsets and additional VR headsets) and hiring research assistants to help with the current, ongoing, and planned research in these areas. Throughout all of my work I will continue to strive to influence positive changes for student behavior and mental health, particularly those who are most marginalized, and for the advancement of the School Psychology profession as a leader in service provision for youth and their families.

Thank you again for the continued support you show the U, the College of Education, the School Psychology program, and me. Words cannot express the true extent of my gratitude as recipient of the Dee Endowed Professorship, a truly distinguished honor.

Sincerely,
Aaron J. Fischer, PhD, BCBA-D, LP, LBA
Dee Endowed Professor of School Psychology | Department of Educational Psychology, Adjunct Associate Professor of Child Psychiatry | Department of Psychiatry, University of Utah

FY2022 Dee Endowment Report

July 1, 2021–June 30, 2022

Dear Candy and Tim:
It is my pleasure to submit the following report on the fourth year of the Dee Endowed Professorship in School Psychology. 2021-2022 continued to be an uncertain time, with social, educational, and public health concerns at the forefront of our minds. The ongoing need for telehealth services was critical, and the work I've conducted the past eight years continues to be used across education and psychological research and practice. My lab continued to conduct telehealth services and meet critical shortages in schools—providing a variety of mental health and behavioral supports, to youth and their families across Utah. The backing through the endowment provided access the some of the most marginalized students, through direct and indirect service provision, and through lending of devices and lab infrastructure afforded by the endowed funds.

Besides the immediate impact on the community, the funding from the endowment is integral to my research productivity and my ability to fund and support graduate students through research assistant positions and other opportunities where they can gain hands on experience in our field. Your support allows me to hire School Psychology students to carry out critical work in research, training, consultation and clinical practice to support youth in Utah, especially those who have disabilities or other social emotional concerns. This is invaluable experience for the students and their appreciation echoes mine. Further, I was recently promoted to associate professor and tenured—a professional accomplishment I would not have been able to achieve if it were not for your support in the work we do in my lab.

During the fourth year of this amazing honor, I used your funding to support several research and community practice initiatives including:

Activities in Utah's public elementary schools. In elementary schools we used funding to support our teleconsultation research in Washington County schools and expanded, due to COVID-19, to all of our other projects. Specifically, we continued to evaluate a distance education model for training for general and special education teachers, and paraprofessionals. In addition to expanded engagement with parents across Utah (and worldwide) through the use of remote learning for parent social media campaigns (Remote Learning Resources) and a webinar series on a variety of topics. Further, we also expanded remote learning research with our collaboration with the Engineering Arts and Entertainment program at the U. We used funding to support development activities related to a Zoom classroom engagement tool, which online teachers can use to understand and engage students differentially, yet effectively.

Work at the interdisciplinary pediatric feeding disorders clinic on the U of U's campus. We continued to expand services to individuals without autism spectrum disorder. With this expansion we are able to reach families across Utah who have typical feeding problems, like food selectivity (i.e., picky eating). Additionally, we grew our capacity to provide services across those settings and marketing for the clinic.

Innovative research using virtual reality (VR) simulation training for parents and educators. This project specifically targets classroom social emotional supports improving student engagement in the classroom. We used funds to support travel to present at a national conference to present initial data from this project.

Project PEACE: We used funds to support a program for behavior parenting supports for Spanish speaking families, as well as caregiver supports for their wellbeing, through values directed strategies and mindfulness.

In the year ahead, I will continue to conduct VR and telehealth research for educators and caregivers. I plan to use available carryover funds to develop an artificial intelligence VR simulation that creates novel scenarios for training and provides robust performance feedback. This work will be in collaboration with the computer science and electronic arts and entertainment departments on campus and my plan includes acquiring additional equipment (including augmented reality headsets and additional VR headsets) and hiring research assistants to help with the current, ongoing, and planned research in these areas. Throughout my work I will continue to strive to influence positive changes for student behavior and mental health, particularly those who are most marginalized, and for the advancement of the School Psychology profession as a leader in service provision for youth and their families.

Thank you again for the continued support you show the U, the College of Education, the School Psychology program, and my work. Words cannot express the true extent of my gratitude as recipient of the Dee Endowed Professorship, a truly distinguished honor, and the highlight of my career.

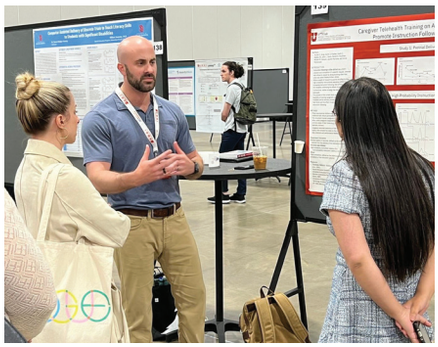
Sincerely,
Aaron J. Fischer, PhD, BCBA-D, LP, LBA
Dee Endowed Professor of School Psychology | Department of Educational Psychology, Adjunct Associate Professor of Child Psychiatry | Department of Psychiatry, University of Utah

FY2023 Dee Endowment Report

July 1, 2022–June 30, 2023

Dear Candy and Tim:
It is an honor to submit the following statement regarding the fifth year of my Dee Endowed Professorship and how the award has supported my research, teaching, and student advising in the Department of Educational Psychology.

After five years of having the privilege to serve as the Dee Endowed Professor in School Psychology, I look back on the transformative nature of this endowed professorship. I think about my ability to dream big ideas and execute with discretionary research funds to support projects related to telehealth services to help diverse children, caregivers, and educators–the work I've conducted the past five years is used across education and psychological research and practice nationally and internationally. I also think about my lab members who were resilient during the pandemic, and who I was able to support, due to the Dee funds, by encouraging presenting at conferences and helping to pay for costs related to membership and registration. Thinking about teaching,



I have used Dee endowed funds to support content development, which I use in various classes. As I reflect across those experiences, and many others, what is clear to me is the innovative work I've started at the University of Utah has only just begun.

Virtual Educator Experience
For the 2022-23 academic year, the Dee Endowed Professorship funds were used to develop the Virtual Educator Experience. This project has been developed in a collaborative partnership with the University of Utah's Therapeutic Games and Apps Lab and the University of Connecticut's Bray Lab. This virtual reality educational simulator uses virtual reality to create classroom simulations so that teachers can see what instructions and reactions are suggested they use depending on the actions of a student. It also incorporates and teaches mindfulness activities that teachers can implement with their students, including breathing exercises and how to focus on the task at hand.

Left: *Utah School Mental Health Collaborative team hike to the Corona Arch in March 2023.*

Left: *U-TTEC Lab members presented at the 2023 Association for Behavior Analysis International Conference in Denver, Colorado in May 2023*

Using advanced technologies to develop a simulated learning environment for preservice educators, participants are immersed in an interactive classroom setting with real student behavior and challenging everyday scenarios. Individuals will be enabled to practice skills related to classroom management utilizing techniques such as behavior-specific praise. Beyond that, this tool will incorporate self-care strategies that can be used in daily personal practice or integrated into daily classroom activity. Consequently, this will allow learners to enhance their competencies, foster confidence, and increase proficiency before engaging in a live teaching environment.

Below: *U-TTEC Lab's VR teacher simulation was featured on ABC4 Utah segment on the EAE 2023 Launch Event.*

I want to thank you so much for the support you have provided through this endowed professorship from both myself and the rest of my colleagues in the Department of Educational Psychology and the College of Education.

Sincerely,
Aaron J. Fischer, PhD, BCBA-D, LP, LBA,
Dee Endowed Professor of School Psychology | Department of Educational Psychology, Adjunct Associate Professor of Child Psychiatry | Department of Psychiatry, University of Utah

Media Articles

How a telepresence robot is changing some classrooms

May 12, 2016

Laura Devaney
eSchool News

Laura Ascione is the Editorial Director at eSchool Media. She is a graduate of the University of Maryland's prestigious Philip Merrill College of Journalism.

A new technology enables both interactive communication and observation capabilities with a telepresence robot platform.

Thanks to recent strides in robotics and mobile devices, telepresence technology has opened up numerous possibilities at both the K-12 and higher-ed levels, where remote observation and communication can come in handy.

Educators and students are exploring a new way to remotely observe and interact with colleagues and peers with a telepresence robot that enables face-to-face communication.

Using Kubi, from Revolve Robotics, users download an app onto a tablet and connect the tablet to Kubi using Bluetooth. The tablet sits on a robotic platform. Other users can then "navigate" to Kubi with a browser. This lets them control the robot remotely over the web, including moving it for face-to-face communication.

At the K-12 level, Kubi is proving useful for observation in special education classrooms. Often, having a new person in the classroom will change students' behavior. For rural schools, the technology can also help beam in experts and professionals that otherwise couldn't observe or speak with students.

Aaron Fischer, an assistant professor at the University of Utah who is researching how using telepresence robots such as Kubi can help connect professionals with special needs students, said trying to get school psychologists into schools in hard-to-reach places or rural areas is often highly challening. This is where Kubi comes in.

Fischer and his colleagues discovered Kubi when they looked into video conferencing systems to see if the approach proved effective in observing student behavior and helping teachers address the behavior.

"Kubi added more versatility," Fischer said. "In these hard-to-reach places, they don't always have constant access to a school psychologist, or one might be assigned to multiple schools."

Next page: Making it a regular part of the classroom

Any new visitor or tool in a classroom will attract student attention, but Kubi's ability to become a "regular" part of the classroom helps make observations more accurate because students are not altering their behavior due to seeing someone new in the classroom, he said.

"The benefit of this technology is we can black out our screen, if we move it around [students] may be aware of that, but because we can look around the classroom, we're able to observe where the student is situated, how much attention groups are getting, and things like that," he said.

"We've seen real success this year–we're in seven different classrooms in southern Utah and are able to provide really high-quality [feedback]," he added.

Below: *Dr. Aaron Fischer with a telepresence robot.*

"It allows this 'wow' interaction because you can look all around," said Jeff Goldsmith, VP of marketing for Revolve Robotics.

Goldsmith said the uses extend well beyond classroom observation and teacher coaching — the robot can also help students who are sick or otherwise home-bound attend classes, serve as a resource for class guest lectures or school board meetings when members are spread across large geographical distances, and can be used in blended learning environments.

At Oral Roberts University (ORU), senior students must complete and present a research project to students, faculty and staff as a graduation requirement.

When it came time for Cara Philip, an ORU student, to present her project, she was studying abroad at Oxford University and was unable to physically travel back to present her project.

Using Kubi, she was able to join her class twice — first, to listen to a presentation given by another student, and the second, to give her own presentation.

"I found it really easy to use the technology," said Philip. "They sent me a code, I clicked the link, and entered the classroom instantly. I'm overseas and don't have time to download programs and other things technology can demand of you."

Kubi's individual control capabilities are appealing, she said.

"I really liked how I was in control of it," Philip said. "I could see my classmates and change my direction. I thought that gave it a greater dimension than Skype or FaceTime would."

"I can't believe there's technology in such a way that one person in one timezone can stream in and listen to someone in a completely different timezone," said Dr. Joel Gaikwad, chair of the university's Biology and Chemistry Department.

"When she was presenting, we put the robot in the front of the class. She was talking, and we could hear her reasonably well– we made sure the class was completely silent. If someone asked her a question, it was nice that she could turn the screen and move in the direction of the person who asked the question," he said. "It made the presentation more animated and live, as if there's a live person and the screen is moving."

Gaikwad said an interactive technology such as Kubi has many potential applications in the classroom.

"I think your learning has to be interactive," he said. "Facebook and email are OK, but they're not in real time. This is in real time, and I think that's just fantastic."

Behavioral health legislation slated for Utah's 2023 legislative session to support access, youth, and workforce

January 13, 2023

By: Boram Kim

State of Reform

With the Utah Legislature scheduled to begin its 2023 general session next Tuesday, multiple bills related to behavioral healthcare—both its workforce and its provision—have been filed ahead of the assembly.

The Health and Human Services Interim Committee approved several measures that address crisis response and the mental health support for first responders. House Bill 23 would modify the duties, membership, and responsibilities of the Utah Substance Use and Mental Health Advisory Council (SUMHAC) to include forensic mental health as part of its legislative assessment.

Under the bill, SUMHAC would incorporate the responsibilities of the Forensic Mental Health Coordinating Council and work with the Department of Corrections to address the staffing and provision of state mental health services to incarcerated individuals and justice-involved juveniles.

Another measure sponsored by Rep. Steve Eliason (R- Sandy) and developed by the Utah Behavioral Health Crisis Response Commission, HB 66, would establish funding for local law enforcement agencies to establish or expand mobile crisis outreach teams through grant programs, building out the state's crisis support network. A similar bill, HB 29, approved by the Law Enforcement and Criminal Justice Interim Committee would also expand mobile crisis response through local grants.

Law enforcement in select areas including Salt Lake and Utah Counties is already working with mobile response teams virtually connected to a licensed clinical social worker to manage an individual's episode and refer them to a nearby crisis receiving center, if necessary.

HB 78 would require health plans to cover mental health treatment for its enrollees regardless of whether the provider is in-network or not. HB 81 would require state-employee health plans to comply with the federal Mental Health Parity and Addiction Equity Act, including limitations that can be placed on residential treatment.

Utah youth and families need behavioral health support, according to Vice Chair of Education for the Department of Psychiatry at Huntsman Mental Health Institute, Aaron Fischer, PhD.

Fischer leads work on the Utah School Mental Health Collaborative (SMHC), a pilot program that builds mental health collaboration with public schools through student assessments, staff training, and implementation of mental health supports and services for students.

The collaborative partners with the Utah State Board of Education and the Office of Substance Use and Mental Health to support the voluntary program, working with 10 or more schools in a limited number of counties, including Logan County, where community mental health needs systemic support to provide direct therapy services.

Fischer said the collaborative has been conducting wellness screening on students across the state and using the information to help schools make better decisions.

"There's a shortage of professionals to do this work across the state, but particularly in these rural communities, and underserved communities," Fischer said. "We really want to try to figure out ways we can bridge that gap. And so, a lot of what we're doing through this project is really trying to utilize a telehealth framework to the extent possible, and really create opportunities for professional learning and community connection."

Fischer said the collaborative has been in communication with Rep. Eliason on issues surrounding youth mental health and looking into ways to potentially broaden the collaborative's efforts statewide.

There are also upcoming bills that address professional healthcare licensing requirements. HB 159 would allow professionals who hold a healthcare license from a different state to provide telehealth services to Utahns under certain circumstances. HB 166 would ease licensing requirements and remove remote therapy restrictions for clinical social workers, marriage and family therapists, and clinical mental health counselors.

Tiana McCall, LCWS, a school-based social worker and mental health specialist with the Utah State Board of Education and participant in the SMHC, is having conversations with policy leaders about building comprehensive systems of mental healthcare through collaborative efforts.

"This means considering the spectrum of services from prevention to intervention to postvention and working within multidisciplinary teams to ensure the needs of students are being met," McCall said. "Collaboration between school teams, community providers, and students and families is key to supporting student mental health.

The most commonly reported workforce issues that I hear about are struggles with finding qualified mental health professionals to fill open positions and lack of funding to provide adequate salaries for qualified mental health professionals."

The state has multiple funding options to address Medicaid and behavioral health. The state's Medicaid expansion fund, which was established through a 2018 ballot initiative, has some $200 million for legislators to work with.

The $1.7 trillion federal omnibus spending bill passed in late December appropriates billions of dollars in funding for states to address mental health and addiction, including provisions for school-based and other youth mental health and substance use services.

Rep. Rosemary Lesser (D – Ogden) said the legislature is looking at ways to utilize those federal funds and expand the presence of mental health professionals in schools.

"[Federal omnibus] funding would allow for expanding the number and allowing more mental health providers to be in schools," Lesser said. "Providing therapy for students is needed. So I see that as a really important place to offer intervention. I know that at the hospital where I used to practice before I became a citizen legislator, we had an employee assistance program, in which the mental health providers were very well trained in the specific stressors that healthcare workers are experiencing.

I think [having an] employee assistance program for educators and paraprofessionals would be similarly helpful, because this has really become a big stressor for our educational system [and its] employees. So putting in an Employee Assistance Project, I think would be a really good use of the omnibus package."

How a higher-ed partnership transformed student mental health services at our school

September 26, 2022

By: Matthew Smith

eSchool News

eSchool Media Contributors Matthew Smith, Principal, Salt Lake Center for Science Education-Bryant Middle School.

It's a given that students will experience stress as they move through school. Learning new concepts, completing assignments and taking tests, and navigating social experiences all contribute to normal stress. But today, our students are struggling with much, much more. And too much stress has dangerous implications for student mental health and well-being.

Anxieties related to lockdowns, school violence, COVID, and family issues proved to increase students' stress levels and can leave them in such a state that they are unable to learn.

In my role as the principal of Salt Lake Center for Science Education-Bryant Middle School in Salt Lake City, I have witnessed first-hand the impact that elevated stress levels have had on our students' well-being.

As a staff, my colleagues and I have observed and discussed a marked decrease in students' interpersonal skills, including how they get along with each other and with their teachers. We've also noticed a big reduction in how students talk to and get along with other people. This has a big social-emotional impact on them, and we've watched our students remain in a frustrated state much of the time.

Meeting student mental health needs

When you work with kids in a school setting, you often know when a student is struggling. Every child struggles in one way or another. But there are some who are struggling to the point where learning isn't happening as it should.

For nearly five years, we've been lucky to partner with the U-TTEC Lab, a contemporary research lab in the University of Utah's Department of Educational Psychology. The lab works closely with several schools in Utah to provide direct and indirect mental health supports and infrastructure.

This partnership brings trainee therapists or trainee clinicians, working under the supervision of licensed providers, directly to our school. We call the collaboration between the onsite clinicians, school guidance counselors, and administration our "well-being team," and the clinicians provide 20 hours a week of in-person support.

We operate on a three-tiered mental health and well-being system. On the first tier, our well-being team consults with us on what we're doing school-wide to support students. Team members help us watch for warning signs and recognize when students have needs. The second tier is group therapy, with parental permission and involvement. The third tier is individual therapy, also requiring parental permission.

Having clinicians in the building for consultations or screenings (opted into by parents) is critical. Through universal screening, which our well-being team does three times a year, we assess all students and ask them how they're doing. Do they like to come to school? Is there anything that's bothering them? Do they enjoy studying? What are they good at and where do they excel?

Once we have the results from the screener, we use those results to triage who is at a high risk, who is at moderate risk, and who is not at risk. We can identify students who may need immediate support, like one-on-one therapy or an intervention in the case of a potential mental health crisis. We also have students who might not have such acute needs but who may be experiencing some risk, and we want to intervene early.

Funding our partnership

It's hard to address the mental health needs of students. Most schools don't have a line item in their budget that pays for onsite counseling or other mental health resources.

In the past decade, we have seen some positive changes in Utah with school districts having more social workers in

schools. Our U-TTEC Lab partnership is critical because it helps support the work of our school's social worker.

We have funded our work with the U-TTEC Lab in various ways over the years. In the first year of the partnership, we were able to fund it with various discretionary funds. Then, the U-TTEC Lab was kind enough to include us in a grant application to Cambia Health Foundation, and that paid for two more years of the program.

COVID has shined a spotlight on the student mental health crisis, and it has also brought additional money. For this coming school year, we should be able to use ESSER money to fund our partnership. After that, it will be up to me and my team, in collaboration with the U-TTEC Lab, to find ways of continuing to support the program.

During our partnership, we've worked extensively with Chathuri Illapperuma-Wood, PhD, NCSP, BCBA, LBA, research and programs coordinator at the U-TTEC Lab and project implementation coordinator for the Utah School Mental Health Collaborative (U-SMHC). The Collaborative, directed by Dr. Aaron Fischer, PhD, BCBA, LP. LBA, is a state-wide project advancing and aligning school mental health infrastructure by providing school districts across Utah the technical assistance and training to develop effective mental health systems in their schools.

Our collaboration has helped emphasize just how critical student mental health needs are.

"One benefit that emerged from the pandemic is that people are now more willing to talk about and acknowledge mental health difficulties than prior to the pandemic," Chathuri told me recently. "Stress, trauma, poverty, and lack of access to resources such as healthcare, food, and housing—all of those things play a role in student mental health, and the pandemic shifted all of that, especially for those marginalized communities. You can take it a step further and talk about caregiver and educator well-being, too, because our adults have to be healthy not only physically, but also mentally to be able to support children."

Key outcomes

I can say, without a doubt, that our school's culture is better as a result of this partnership. It just feels better in classrooms, in the hallways, and at lunch. And since we implemented a solid system of school-wide screening and intervention for at-risk students, we have seen a 40-percent drop in suspension rates.

Having the well-being team in our school has helped reduce the stigma around mental health struggles. It's helped students realize they have a place to go when they need help. It's helped us to avoid crises as a school community.

The resources and targeted assistance we're able to offer now have changed dramatically. Before the partnership, when we encountered a student who was struggling, we talked to the parents or caregivers about the community resources available, gave them a handout, and that was where our ability to help ended. That's an incredibly hard position to be in–to have a student who is struggling in a school system that's working really hard but is just not equipped to meet that level of need. It's hard to see the hurt and the fear in parents' eyes. Now, we're able to connect that student and their family to our well-being team, and we can do so much more. It's a game changer. It's just so much better for kids.

Looking ahead

As we look to the future, we are considering new options to complement our work with the U-TTEC Lab. One goal is to explore private platforms, such as MyConcern, that allow K–12 teams to record their concerns about students, upload supporting evidence, refer students to social and health services, and do monitoring/follow-up.

Wherever your school or district is in its efforts to support student mental health and well-being, keep moving forward. Focus on addressing the needs you've identified and bring in the tools and people necessary for support. Celebrate your successes and recognize that there will be bumps in the road. Building-level leaders should speak to their district colleagues about their work. Make sure they know about your successes.

As a profession, we must address mental well-being for students to feel safe and ready to learn. If there are students in crisis, their academic progress is not going to happen. If we don't make students' mental health a priority, then we won't succeed in fulfilling our main mission, which is ensuring academic success. Student mental health is a variable that simply can't be ignored.

Above: *Dr. Aaron Fischer and U-TTEC members in 2022.*

Published Papers

Components of a Successful Classroom: A Factor Analysis for Initial Validation of a Measure Assessing Tier One Classroom Management

June 2023

By: Anniette F. Maldonado, Aaron J. Fischer, Hannah Michael Wright, Rylee L. Jensen, Ashley N. Coombs, Sara N. Mathis, Keely Lundy, Alyson Funn, Leanne Hawken, Keith Radley, and Lauren Perez

Research Gate

Abstract

The literature has identified the use of data-based, problem-solving as an essential element in the promotion of positive behavior interventions and supports (PBIS) within the classroom. The Components of a Successful Classroom (CSC) tool is an instrument which has undergone initial validation to support its use for measuring critical features of Tier 1. This study provides initial support for the validation of this classroom management observation tool as part of a problem- solving consultation framework by examining the extent to which items on the CSC tool sample the constructs of interest in classroom management. Behavioral consultants utilized the tool to evaluate Tier 1 behavior management strategies implemented by teachers in the classroom. An exploratory factor analysis (EFA) was conducted to determine factor structure of the classroom management observation tool. Findings of the EFA supported a unidimensional construct best measured with three factors (i.e., preventive supports, feedback provision and engagement, and expectations and consequences). Currently, this tool may be useful to practitioners by guiding general education consultation after identifying main concerns in teacher's implementation of Tier 1 supports and supporting implementation of PBIS practices in the classroom.

Implementation of a positive behavioral interventions and supports (PBIS) framework within the classroom environment is essential; especially the use of data-based, problem-solving (Coffey & Horner, 2012; McIntosh et al., 2011). Positive classroom behavior support (PCBS) practices have been shown to benefit students both behaviorally and academically including increased student appropriate behavior, decreased challenging behavior, and improved academic outcomes (Center on PBIS, 2021). Simonsen and colleagues (2021) highlighted foundational, positive classroom practices implemented within a multitiered system of support. Specifically, Tier 1 PCBS practices focus on the develop- ment and teaching of classroom routines, connecting with students, adoption of school expectations for the classroom, delivery of prompts and precorrections, active classroom supervision, engaging students in effective and explicit aca- demic instruction, and providing high ratios of positive to corrective feedback. This article focuses on Tier 1 as these foundational supports relate to the classroom environment.

While Tier 1 strategies are relatively easy for teachers to employ (MacSuga-Gage & Simonsen, 2015) and demonstrate a positive impact on student behavioral and academic out- comes (OSEP, 2015), some of these strategies are often miss- ing or implemented at lower levels within the classroom (Reinke et al., 2013). This suggests that teachers may need additional support in identifying deficits in their PCBS imple- mentation. Simonsen et al. (2019) argued for a threefold approach to supporting student learning and classroom behav- ior: (a) implementation of core PCBS practices, (b) school leadership teams supporting teachers' implementation, and (c) teachers and school leadership actively using data to monitor and modify supports.

Simonsen and colleagues (2020) highlighted the need to utilize a brief and validated measure of PCBS strategies to guide professional development. They emphasized that available measures are either simple but not psychometri- cally validated or psychometrically validated but too com- plex to be sustainably implemented. Given what we know about the critical components that support teachers' and students' achievement of desired outcomes, it is essential to develop and validate observation tools that can be easily implemented by school-based observers. A psychometri- cally sound and simple measure will enhance feasibility and approachability, thus leading to greater usage of data-driven measures by school personnel to assess utilization and implementation of PCBS strategies.

Because the Components of a Successful Classroom (CSC; Fischer et al., 2019) was created based on the afore- mentioned foundational Tier 1 guidelines of Simonsen and colleagues (2019, 2020, 2021), Simonsen's work is the theo- retical framework this study is based on. Furthermore, given that the current study looks to begin the validation of the CSC measure, another framework used as a reference for the initial validation of this measure is Kane's (2013) four- pil- lared validity framework for an interpretive argument.

The four pillars include scoring, generalization, extrapolation, and decisions. The general framework consists of a two-step process for each pillar wherein the possible interpretations and uses of the data are determined and critically evaluated. An analysis of the proposed interpretations is then conducted to assess the plausibility of the arguments.

Purpose and Research Questions

Following Kane's framework, this study provides support for the initial validation of a classroom management observation tool as part of a problem-solving consultation framework with special interest in the extent to which items on the CSC tool adequately sample the constructs of interest in classroom management. To address the initial validation of the tool, the following research question was addressed: What is the factor structure of the CSC and what items are retained following an exploratory factor analysis (EFA)?

Method

Participants and Setting

Elementary school teachers (i.e., kindergarten to sixth grade) from a large school district in the Mountain West region of the United States participated in this study. The elementary schools are part of a public school district that participated in an extensive PBIS collaboration with an institute of higher education called the Behavior Response Support Team

(BRST). The study utilized data from a total of 47 teachers across three elementary schools. The data were observed and collected by graduate-level, school psychology students who also served as behavioral consultants.

Measure

Behavioral consultants utilized the CSC (Fischer et al., 2019) to support data-based problem-solving and evaluate Tier 1 behavior management strategies implemented by teachers in the classroom during a 60-min observation of whole group instruction. The CSC consists of 15 items rated on a 0- to 1-, 2-, or 3-point scale for a possible 42 points total. Observers evaluated classroom rules, praise, positive-to-negative statement ratio, attention signals, behavior tracking, opportunities to respond, and class-wide on-task behavior.

Procedures and Analyses

A literature review on PBIS and effective teaching practices was conducted. Three experts in school PBIS collaborated to determine items to be included in the current iteration of the CSC tool based on literature review findings and the Tier 1 foundations highlighted by Simonsen and colleagues (2021). A behavioral consultation program then provided monitoring, coaching, and training to school-based teams through a problem-solving consultation framework. To sys- tematically assess need, consultants utilized the CSC to observe all general education classrooms once at the beginning of the school year, providing feedback to teachers after their observation and Tier 1 consultation to specified teachers. Based on Kane's (2013) scoring pillar, a CSC cutoff score was selected to determine which teachers would receive further support through consultation services. Teachers who received consultation were observed a sec- ond time at the end of the school year. For teachers with multiple observations, both observations were included in the final analysis. Team members from this consultation program met weekly to discuss specific cases as well as the use of the CSC. The meetings provided an opportunity for debrief and discussion of consistency of results. When cer- tain items on the CSC were unclear or ambiguous, the team, including the experts in school PBIS, refined the items to ensure consistency across consultants using the observation tool. While Simonsen and colleagues' (2019, 2020, 2021) Tier 1 guidelines served to highlight positive classroom practices and determine the potential constructs being mea- sured, additional information was needed to determine gen- eral commonalities in the items observed. An EFA was then conducted to determine the factor structure of the classroom management observation tool utilizing observations of teachers' classroom management.

Guided by Kane's generalization pillar, and using EFA methods, the produced correlation matrices were analyzed to improve item reliability. As this study was exploratory in nature, principal axis factoring (PAF) was chosen over principal component analysis, as it has been seen as more suitable to assess a construct that cannot be measured (i.e., CSC; Kahn, 2006). Prior to performing PAF, the data were examined for suitability for factor analysis with the Kaiser–Meyer–Olkin value exceeding the recommended value of 0.6 (Tabachnick & Fidell, 2013) and Bartlett's test of sphericity reaching statistical significance, thus supporting factor extraction. When deciding factor reten- tion, the authors followed the recommendation that mul- tiple techniques should be used (Fabrigar et al., 1999). Retention tests included Kaiser's criterion (eigenvalues greater than 1.0), Cattell's scree test, and use of intuition to ensure factor extraction is theoretically possible. All retention rules were observed prior to proceeding with each extraction.

Results

Bartlett's test of sphericity analysis indicated that the correlation matrix was not random, $\chi2(105) = 309.35$, $p < .05$. The Kaiser–Meyer–Olkin statistics was .71, thus exceeding the recommended minimum standard (Kline, 1994). These results suggested the correlation matrix was appropriate for factor analysis. The second step of Kane's (2013) validity framework, analysis of proposed interpretations, was refer- enced to further interpret the results. Visual examination of the scree

plot indicated evidence for four factors, but inter-pretability was problematic when the authors attempted to interpret beyond a general factor. Due to interpretability and the exploratory nature of the study, forced three-factor and two-factor solutions were examined. In addition, given the nature of this brief report and the limit in page length, the authors were unable to provide additional detail on fit statis- tics as would be expected.

Table 1 presents the results of the PAF analysis with obl-imin rotation. The three-factor solution accounted for 54.47% of the variance. Factor 1, Teacher Behaviors Related to Preventive Supports, explained 35.96% of the variance and contained six items. Factor 1 had internal con- sistency of .88. Factor 2, Teacher Behaviors Related to Feedback Provision and Engagement, consisted of six items with an internal consistency of .72. Factor 3, Rules, Expectations, and Consequences, had three items that loaded onto it with an internal consistency of .38.

Discussion

Findings of an EFA, conducted for the initial validation of a classroom management tool, supported a unidimensional factor structure (i.e., CSC). This unidimensional construct was best measured with three factors (i.e., preventive sup- ports; feedback provision and engagement; and items related to rules, expectations, and consequences). This fac- tor structure fits well and provides a thorough and compre- hensible structure that is in accord with theoretical frameworks utilized to determine tool development (Simonsen et al., 2019, 2020, 2021) and items to be included in the current iteration of the CSC observation tool. Specifically, the factors were labeled based on Simonsen and colleagues' (2021) Tier 1 PCBS foundational practices as they relate to the classroom environment. It is important to note that the smaller sample size of this study may be insufficient for a three-factor solution which may explain the limited variability accounted for in the results.

Implications

The findings of this study provide initial psychometric vali-dation of the CSC in evaluating teachers' implementation of three broad, evidence-based classroom practices: preventive supports, feedback and engagement, and expectations and consequences. Currently, this tool may be useful in guiding consultation after identifying main concerns in teacher's implementation of Tier 1 supports. The use of this tool may provide a structure for preliminary identification of students' academic or behavioral needs. However, greater investiga-tion into the external validity of the CSC is necessary and should be undertaken, specifically related to student out-comes as this was not addressed through the current study and is a limitation. In addition, testing a hierarchical struc- ture would be a reasonable next step in the validation pro- cess. The CSC may also be used by school administrators, teacher coaches, and mental health and behavior support staff (e.g., social workers, school psychologists) allowing for the sustainable implementation of the tool beyond sup- ports outside the school. While this tool is intended to be used within PBIS systems, future work should include a more general sample of teachers, including those without PBIS training to further explore generalizability of results. Future validation efforts of this classroom management tool should also explore other validity frameworks.

Cultural and Linguistic Adaptations: Equitable Accessibility to an Evidence-Based Intervention for Diverse Caregivers

March 2023

By: Anniette F. Maldonado, Aaron J. Fischer, Rylee Jensen

Research Gate

ABSTRACT

Families from minoritized backgrounds experience healthcare disparities, including a lack of evidence-based interventions and services that are culturally relevant. The study at hand provides documentation of the adaptation processes conducted to provide equitable accessibility to a packaged intervention for Spanish-speaking Latino parents, Parents Effectively Addressing Challenging Behavior en Español (Project PEACE). The adaptation process follows the Cultural Adaptations Process Model (Domenech et al., 2011) and the Ecological Validity Model (Bernal et al., 1995), and details the initial phase in the process for developing a parent training intervention with cultural sensitivity. The present study also provides further evidence about how cultural adaptations can be implemented within an evidence-based intervention model for parent training. The study documents the processes and phases of the cultural adaptations for the purpose of future replication.

CULTURAL AND LINGUISTIC ADAPTATIONS: EQUITABLE ACCESSIBILITY TO AN EVIDENCE-BASED INTERVENTION

FOR DIVERSE CAREGIVERS

Researchers have found disparities in access to health care and mental health services for non-Hispanic Black families, Latino families, and individuals with lower incomes (SAHMSA, 2015; van Dyck et al., 2004). Families from minoritized backgrounds, therefore, experience a lack of evidence-based interventions and services that are culturally relevant, specifically language and/or cultural competency in service provision. In addition to this gap in services for families from marginalized backgrounds, there is another reality that compounds this need. Over the next several decades, the United States (U.S.) is projected to see its population of people of two or more races, Asians, and Latinos become the fastest growing racial and ethnic groups (Vespa et al., 2018). Moreover, two of every three children are expected to be of a race and/or ethnicity other than Non- Hispanic White. Simply put, the U.S. population is growing more racially and ethnically diverse.

Given the growing need for culturally responsive behavioral and mental health services for diverse communities, there is also a need for continued demonstrations of cultural adaptations of such interventions. Specifically, it is critical to provide examples of these adaptations in practice and beyond theory. The current paper presents an adaptation for Spanish-speaking Latino families in Puerto Rico with the Research Units in Behavioral Intervention (RUBI)'s Parent Training for Disruptive Behavior manualized program and Acceptance and Commitment Therapy (ACT) oriented supports. The resulting packaged intervention, Parents Effectively Addressing Challenging Behavior en Español (Project PEACE), was developed to address the behavioral and socioemotional needs of Spanish-speaking families of children with autism spectrum disorder (ASD).

Addressing Challenging Behavior and Mental Health

Significant stressors that impact the mental health of underserved families with children with ASD include cultural acceptance of the disability, language proficiency, misconceptions of ASD, and challenges navigating or accessing services, among others (Iadarola et al., 2019; Zuckerman et al., 2017). Further looking at these stressors, the findings of Magallón-Neri and colleagues (2018) introduced prevalence rates of mental health disorders and subsequent mental health service utilization for Puertorican parents and relatives of children with ASD. Strikingly, in comparison to Puertorican caregivers without children with ASD, Puertorican caregivers of children with ASD had higher rates of serious mental illness and other mental health psychiatric disorders (e.g., depression, anxiety). However, even with higher rates of mental health needs, this population did not utilize mental health services at a greater rate than the comparison group. Ultimately, these preliminary findings highlight the disparity in mental health treatment for Puertorican caregivers of children with ASD. Interventions for underserved communities should, therefore, address service and health disparities while being individualized to caregiver experiences and characteristics.

Rovane and colleagues (2020) found that regardless of the effectiveness or relevance of a treatment, parent stress negatively impacted parents' fidelity and adherence to the intervention. Further, when parenting stress is low and the intervention is not too burdensome (i.e., high cost, time intensive), parents demonstrate high adherence to the intervention. For this reason, implementing interventions that focus on both parent psychological wellbeing and child behavioral needs is crucial, especially as parental stress is largely associated with child problem behavior (Benson, 2010; Lecavalier et al., 2006; Postorino et al., 2019; Zaidman-Zait et al., 2017). This may be done by incorporating specific coping strategies into parent behavior training (Singh et al., 2019; Zaidman-Zait et al., 2017). Researchers engaged in this line of study found there is a need to systematically address both parent management of child challenging behavior and parental stress (Singh et al., 2019; Whittingham et al., 2009; Zaidman-Zait et al., 2017).

RUBI Parent Training for Disruptive Behavior

The RUBI Parent Training program is a manualized program which has been studied through multiple randomized clinical trials (RCT; Bearss et al., 2018). RUBI has been empirically validated, proving to decrease parent stress while increasing child adaptive skills and significantly reducing disruptive behavior (Bearss et al., 2015; Postorino et.al, 2019; Scahill et al., 2016). Several of the RCTs which evaluated the RUBI parent training manual met What Works Clearinghouse (WWC) standards, a rigorous systematic review process.

Researchers have investigated whether parent training is a better intervention compared to parent education for improving disruptive behavior and daily living skills of children with ASD (Bearss et al., 2015; Scahill et al., 2016). The intervention, delivered over the course of 11 to 13 sessions, provided training to parents on strategies for managing their children's problem behavior utilizing the RUBI manual. By contrast, parent education, delivered across 12 sessions, consisted of basic information regarding ASD with no further strategies for managing problem behavior. Researchers found the RUBI parent training to be a more efficacious intervention in reducing challenging behavior in children with ASD, which in turn led to enhanced daily living skills, especially in children with higher cognitive abilities.

Enhancing RUBI for Caregivers

Although the RUBI parent training program has been shown

to decrease parental stress, several studies have also explored interventions that systematically address parental stress in families with children with ASD (Gould et al., 2018; Sairanen et al., 2019). One-way psychological stress in parents has been addressed is through ACT-oriented interventions. One of the principal outcomes of ACT is psychological flexibility. Psychological flexibility refers to "how a person: (1) adapts to fluctuating situational demands, (2) reconfigures mental resources, (3) shifts perspective, and (4) balances competing desires, needs, and life domains" (Kashdan & Rottenberg, 2010, p. 866). Ultimately, ACT focuses on a values-driven approach to guide behavior and decision-making within the individual's past experiences and current environmental context (Bach & Moran, 2008). A values-based approach is a beneficial, feasible, and successful supplement to parent behavioral training. Further, as ACT highlights a flexible approach to finding solutions, by becoming more adaptable in their parenting approach, parents ideally also become more open to trying new methods of addressing child challenging behavior (Whittingham & Coyne, 2019). ACT can be used to guide parents to engage in flexible and compassionate parenting, even in the face of psychological stress.

Studies involving ACT-based interventions have found that parents of children with chronic conditions, including autism, can benefit from web-based ACT interventions and that these interventions can help increase caregivers' values-directed behavior (Gould et al., 2018; Sairanen et al., 2019). The results of these studies also indicated that ACT interventions for parents decrease symptoms of burnout and depression, improve mindfulness and cognitive defusion, and promote behavioral gains that are maintained well after the intervention. Results further suggested that "ACT may be a beneficial complement to community-based [applied behavior analysis (ABA)] service delivery models" (Gould et al., 2018, p. 87).

Diverse Communities

Van Dyck and colleagues (2004) investigated the number of children with special healthcare needs across the nation, describing their characteristics as well as how well their needs were being addressed and their families supported. Researchers found disparities in access to health care services for non-Hispanic Black families, Hispanic families, those without health care insurance, those with lower incomes, and those with a child severely affected by their disability. Hispanic and non-Hispanic Black families were more likely to be dissatisfied with their child's health care and, the lower the income of the family, the more likely they also were to report dissatisfaction. In addition to disparities in access to health care services, families from marginalized backgrounds often also experience a lack of evidence-based interventions and services that are culturally relevant, including service providers who lack language or cultural competency (López et al., 2019). When minoritized families receive culturally relevant information which addresses their specific needs, there are significant improvements in their confidence in using evidence-based approaches, the frequency with which they use them, and their knowledge about their child's rights (López et al., 2019).

Current Literature on Cultural Adaptations

The need for cultural adaptations to behavioral and mental health interventions is highly warranted as historically marginalized populations are overrepresented in these systems yet supports rendered to these communities are typically normed around White-ethnocentism (Baumann et al., 2015). Utilization of resources that do not culturally meet the needs of clients leads to an ineffective provision of mental and behavioral health services. There is a current emphasis amongst researchers and practitioners to adapt pre-existing evidence-based programs (EBPs) to address cultural-specific needs of diverse populations.

Weeks (2022) completed a systematic review to examine the effectiveness of theory-based strategies currently being used in the process of cultural-adaptation to EBPs. Two frameworks to consider when making cultural adaptations include the Cultural Adaptation of Evidence-based Interventions Model (Barrera & Castro, 2006) and the Ecological Validity Model (Bernal et al., 1995). These frameworks name specific areas of focus for adaptations, which include information gathering, preliminary adaptation design, preliminary adaptation tests, adaptation refinement, language, persons, metaphors, content, concepts, goals, methods, and context. Beyond these areas, Aarons and colleagues (2012) add that those adapting pre-existing interventions should be mindful of changes made to core components of intervention models, as this may negatively impact the effectiveness of the program. In addition to framework-driven guidelines, Weeks (2022) identified current adaptation themes that involved either system level changes (e.g., organizational implementation changes) or changes at the individual intervention level. Specifically, themes included adaptations to content, language, concepts, level of family involvement, service delivery modality, and therapeutic norms between clients and practitioners.

Clinicians and researchers have seen success as current EBPs have been adapted to become more culturally relevant. Specifically, adaptations to program content, language, and service delivery modality have yielded clinically significant effects with culturally and linguistically diverse populations with various mental and behavioral health needs (Burrow-

Sánchez and Hops, 2019; Muroff et al., 2017). However, there is still much work to be done in advancing diversified EBPs. Those working on program adaptations might benefit from taking time to focus on the needs, normative practices, and preferences of families and communities while building sustained capacity for local clinics (Valdez et al., 2017).

ADAPTATION MODELS USED IN CURRENT STUDY

In addition to general recommendations in Weeks (2022), the adaptations described for the current study followed those described in the Cultural Adaptation Process Model (CAP; Domenech-Rodríguez and Wieling, 2004) and the Ecological Validity Model (EVM; Bernal et al., 1995). These were jointly conceptualized as a means to adapt the content of each component presented through the packaged intervention. The cultural adaptation model described in the current paper includes both (1) a broader model for the adaptation process (i.e., system level) and (2) specific adaptations made to the content of the intervention (i.e., intervention level).

Cultural Adaptation Process Model (CAP)

The CAP emphasizes process-informed, system-level adaptations to make interventions more culturally relevant and linguistically sound. The CAP is broken down into three phases: setting the stage, which outlines steps to take prior to the intervention; initial adaptation, which notes the importance of engaging the target community; and adaptation iterations, including activities that aid in the iterative process of the adaptation (Domenech-Rodríguez and Wieling, 2004). Each phase also has individual steps to help guide the process of cultural adaptations. The CAP was utilized to help guide the general process of cultural adaptation of Project PEACE.

Phase 1: Setting the Stage

In following the first phase of the CAP, and in preparation for the cultural adaptation's development of Project PEACE, a literature review on EBPs was conducted to address challenging behavior in children with ASD and support the mental wellbeing of their caregivers. Further, the literature was also perused to determine best ways to address the cultural adaptation of the selected interventions (i.e., RUBI parent training manualized program and ACT-oriented supports). As part of this phase, multiple collaborations with stakeholders were developed.

First, a partnership was developed with local faculty and mental health providers in the community of interest who helped inform the process as members of the target community (i.e., Puertoricans). These stakeholders assisted in determining a subset of the target community who would benefit from the intervention and who could serve as participants in the iterative trials of the intervention. Second, a partnership was also developed with faculty in Kansas City, Missouri who were already implementing the intervention with Spanish-speaking Latino families. This collaboration enabled further discussions about how to adapt the intervention given their experiences and with Latino families from a broader spectrum of communities (e.g., other countries of origin). Third, discussions and meetings were also scheduled with the first author of the RUBI manualized program (i.e., treatment developer) to maintain the general integrity and concepts of the adapted videos. All three partnerships assisted in guiding the general adaptations that were adopted for Project PEACE. Finally, development of a needs assessment was initiated to determine community needs. Researchers conducted a literature review of past needs assessments administered to the target community (i.e., Spanish-speaking Latino families and Puertorican families of children with ASD). The literature review guided the development of the needs assessment to inform component adaptations.

Phase 2: Initial Adaptation

For the second phase of the CAP, researchers selected measures to be used for Project PEACE. Measures were selected based on those previously used in the manualized RUBI intervention as well as through determining those measures available in Spanish and normed for the Latino community. Through Project PEACE, multiple methods of data collection were proposed including the use of rating scales, direct observation, and caregiver interviews. This is a similar approach as used by Domenech-Rodríguez and colleagues (2011). The intervention itself was further adapted following the specifications of the EVM and as guided by information collected during the CAP's phase 1. General adaptations included translation of content for components of the packaged intervention and cultural adaptations of the intervention.

Phase 3: Adaptation Iterations

Through the third phase of the CAP, changes were made to the content of the packaged intervention in an iterative fashion during discussions with collaborators. These changes included increasing cultural relevance of content as well as increasing feasibility of methodological components. Regarding the linguistic adaptations, after the content of the RUBI videos were translated into Spanish and adapted by the principal investigator, who is also a native speaker, stakeholder discussions led to further changes. Specifically, some of the terminology being utilized in the videos was adapted (e.g., resfriado versus gripe) to be made more inclusive of various Spanish-speaking communities. Intervention schedules were also discussed with local stakeholders to determine best time frames to provide the intervention to the target

community. The intervention was initially set to be delivered during the middle and end of the summer. As families usually go on vacation at the end of the summer (as discussed with community experts), researchers adjusted the timeline to begin later in the spring and end mid-summer.

Ecological Validity Model (EVM)

The framework used to provide a structure for the cultural adaptations of the individual components was chosen to strengthen the ecological validity of the packaged intervention. In other words, it was important that there be a direct correspondence between the intervention (i.e., Project PEACE) as experienced by the participants (i.e., Spanish-speaking Latino families) and the intervention as proposed by the investigators. For this reason, the question at hand was whether the intervention would work in the real world for people with different cultural contexts. The EVM (Bernal et al., 1995) was therefore utilized as a method to adapt the content of the evidence-based intervention components. Researchers within the current study followed Bernal and colleagues' 8 dimensions of ecological validity through adaptation development:

Language

The dimension of Language ensures that the intervention is available in the language of the participant, with "special efforts...directed toward ensuring the use of cultural syntonic language" (Bernal et al., 1995). This involves the understanding of regional and subcultural terminology used by the target community. Within Project PEACE, the RUBI component includes not only the manualized content but also the use of video examples which were originally developed and tested in English. Researchers translated the manualized content for participants and created videos in Spanish to replace the original English versions. They further placed special emphasis to ensure the terminology matched the needs of the target community. The RUBI content is currently being implemented in Spanish in Kansas City, Missouri, by psychologists in the community. Language adaptations to the content and videos were discussed in meetings with the Kansas City group as well as with the first author of the RUBI manual.

Persons

The Persons dimension of the EVM centers around the match between the therapist and the client. The therapeutic relationship should include whether the intervention is flexible in considering ethnic and racial differences and similarities and its role in shaping the relationship. In the Project PEACE intervention, the practitioners' education is flexible. Practitioners can deliver the intervention regardless of education level if they are familiar with and trained in the individual components of the intervention (i.e., RUBI and ACT). The pilot version of this intervention will be tested by the principal investigator, a graduate doctoral student with three years of clinical experience, who is a Board-Certified Behavior Analyst, a native speaker, and a first-generation Latina (i.e., Puertorican). These therapist characteristics further emphasize the correspondence between the therapist and the participants in the intervention.

Metaphors

The Metaphors dimension of the EVM refers to the symbols and concepts that are shared by the target community. These are those embedded aspects of the intervention that promote understanding, comfort, and familiarity. As part of the Project PEACE intervention, there are two aspects of the Metaphors components that were considered when developing the cultural adaptations. Within the video adaptation developed for the RUBI component, various objects were changed to match the culture and location of the participants. For example, in one of the videos, the concept of controlling the environment as a prevention strategy was presented by having a child actor request a cereal the parent did not want the child to eat. Several cereal boxes were displayed on the kitchen counter in this scene. As most Latino families have different breakfast options, an additional option was made available on the Spanish adaptation (i.e., huevitos or eggs). Another example included the clothing the child was asked to put on during various scenes; specifically, the use of a coat. As in some Latino countries winter gear is not often used, the researchers changed this clothing item for shoes; where the parent asked the child to put on his shoes as part of the video example. Within the ACT component of Project PEACE, several metaphors and analogies are used. Researchers ensured the use of metaphors that were familiar to the target community, including metaphors centered around parenthood.

Content

The fourth dimension of the EVM refers to the Content of the intervention as seen through a cultural lens. Within this dimension, it is important to reflect appreciation and understanding of the values, traditions, and customs of the target community. Some values important to Latinos which may become evident through a parent training intervention include familialism, the importance of close family relationships; respeto, an emphasis on child obedience and deference to adult authority; and personalismo, a genuine emphasis on interpersonal trust and respect. Within the current packaged intervention, family values are directly discussed early in the ACT protocol (i.e., Session 1.b; see Table 1). This allows the practitioner to be aware of and acknowledge the values of the target community early in the intervention. In relation to these specific values, although the primary target participants are the caregivers, additional family members interested in participating and who may be

generally involved in the day-to-day of the child's life (e.g., grandparent, older siblings) are also welcome.

Concepts

The Concepts dimension of the EVM refers to the reason for treatment (or the problem) as conceptualized within the treatment model and whether the client understands and agrees with this conceptualization. Concepts in the intervention should be carefully evaluated for cultural sensitivity because the therapist's credibility and the treatment efficacy could be compromised should these concepts be inconsistent with the client's belief system and values (Bernal et al., 1995). In Project PEACE, the initial ACT session provides an opportunity for caregivers to provide their informed consent for allowing the therapist to guide and coach them through intervention activities. Obtaining 'permission' from the participant to engage in didactic sessions and feedback, provides the therapist an opportunity to explain the intervention, let the participant know what to expect, and evoke agreement.

Goals

Within the Goals dimension, it is important that there be agreement between the therapist and the client about the goals of the intervention. For there to be effective consistency between the two parties, the therapist should frame the goals of the intervention through the lens of the values and traditions of the target community. Through the intervention at hand, as previously described, the values of the client are openly discussed as part of the intervention model. This provides the practitioner an opportunity to explore these values and set the intention for the rest of the intervention. Collaborating on goals and engaging in values-directed discussions, will enable the therapist to elicit agreement regarding the intervention's objectives.

Methods

The Methods of the intervention, or the procedures for achieving the objectives of the intervention, is another essential dimension of the EVM. Within this dimension, incorporating cultural knowledge and relevance within the intervention procedures is critical. This requires the intervention methods and tasks to be compatible with and acceptable to the target community. Project PEACE provided parents the opportunity to determine whether in-person versus telehealth delivery would be most feasible for them. When families noted a desire for either modality, researchers secured devices for the families to use during the virtual delivery of information. By providing the necessary equipment and inquiring about the caregivers' preferences, researchers ensure further buy-in into the intervention. Moreover, the packaged intervention allows for and encourages the engagement of other family members in the intervention which is compatible with the known Latino value of familismo.

Context

The final dimension of the EVM considers processes that may be linked to the reason for needing the intervention. This may include such processes as economic conditions, availability of social or familial support, and any political context related to the community of interest. Our intervention considered contextual issues that could get in the way of caregivers accessing the intervention. The treatment barriers were addressed in several ways. First, economic conditions were undertaken by securing funds for participant compensation. Specifically, participants are to be compensated with a Visa gift card of $40-$60 for each weekly session they attend, for a total of up to $260 for their participation. Economic conditions are further addressed, as previously noted, with the provision of access to a device for the length of the intervention. This alleviates any disadvantages related to lack of technology for accessing the virtual intervention.

IMPLICATIONS

Creating culturally and linguistically sensitive behavioral and mental health supports creates greater accessibility to evidence-based interventions for Spanish-speaking families. Research has demonstrated that cultural and linguistic adaptations are essential to increasing engagement with interventions and increasing treatment efficacy (Bernal & Adames, 2017; Domenech Rodríguez et al., 2011). By providing research-sound examples of cultural adaptations in practice, access to effective services that are representative of people's lived experiences and engagement with EBPs is facilitated for underserved communities. Considering adaptations to be made beyond the content and materials of the intervention can also facilitate equity of accessibility. For instance, facilitating the delivery of interventions in different formats can make EBPs more easily accessible to minoritized communities. Providing an option for telehealth services, for example, and facilitating technological support when providing these services, can maximize accessibility to interventions otherwise difficult to deliver in person.

The individual components of Project PEACE have shown to be efficacious in increasing effective caregiver management of challenging behavior and use of evidence-based strategies, as well as decreasing child disruptive behavior and levels of parental stress. Selecting EBPs is the first step in ensuring that the needs of underserved communities are being successfully addressed. It is critical to note that beyond the system-level and intervention-level adaptations implemented, an intervention is only as good as the evidence it is based on.

Given the labor-intensive tasks often associated with these

types of adaptations, and the costs incurred, this line of research and adaptation examples are critical and play a significant role in behavioral and mental health interventions. For this reason, a cost analysis was conducted for one of the tasks involved in this packaged intervention: the development of the Spanish videos. The development of the Spanish videos involved creating animated videos to adapt the language and physical aspect of the characters, and in this way, match the intervention participants. The videos took approximately 300 hours to create across 4 research assistants, 3 voice actors, and the principal investigator. The cost of development was approximately $4,800, including compensated time for those involved and the price of the annual subscription to the video animation platform.

FUTURE DIRECTIONS

It is important to test the adaptations discussed in this study through additional research implemented in communities in which they have yet to be tested. For this reason, conducting the adapted intervention with a Spanish-speaking community and documenting the processes is critical for this line of research. Further, as suggested by the CAP, Project PEACE should be implemented as a pilot study to test the feasibility and acceptability of its intervention components, including specific adaptations. This implementation may be evaluated with a subset of participants from the target community (i.e., Spanish-speaking Latinos). Further, given past success of implementing similar lines of research using single subject designs (Gould et al., 2018), as well as the nature of the components being evaluated, a single subject research design may be considered during implementation.

Prior to implementing Project PEACE, and similar interventions, consideration of the specific needs of the community where the intervention is to be implemented is crucial. A needs assessment can provide additional information regarding delivery methods, current services being accessed, as well as other variables of the intervention that could make the intervention more equitably accessible to the target community. Therefore, future research should consider developing and implementing a needs assessment prior to implementing Project PEACE as this information may be critical in modifying the individual intervention components, the delivery methods, and the cultural and linguistic adaptations.

A Preliminary Evaluation of a Digital Token Economy to Increase Student Engagement during Group Teletherapy

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By: Hunter King, Katerra Miller-Johnson, Keely McCulla, Aaron J. Fischer, Shengtian Wu, Mikey Miller

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Abstract

Shortly following the temporary nationwide school dismissal amid COVID-19, the current exploratory case-study evaluated the feasibility of two engagement strategies delivered during group teletherapy: Class Dojo and opportunities to respond (OTR). Three elementary students with emotional and behavioral difficulties participated. An A-B-A design was used to evaluate the effects of Class Dojo on student engagement with therapist-delivered OTRs. Due to one student's poor response to the contingency, an A-B-C design was used to evaluate the additive effect of student-delivered OTRs on his engagement. Results indicated moderate to high rates of student attendance, and consistently high rates of engagement for two students. When students delivered OTRs, the student who initially struggled to engage demonstrated an increase in engagement. Practical issues are discussed and recommendations are considered for future research on increasing student engagement during online settings.

Introduction

Students with disabilities often exhibit behavioral and social-emotional challenges that can have a profound impact on their academic achievement and peer relations (Sheridan et al., 2017). The prevalence rate of students who receive special education services under the Individuals with Disabilities Education Act (IDEA; 2004) has increased steadily over the past five years (National Center for Educational Statistics, 2020), contextualizing the additional demand placed on general and special education teachers. Furthermore, the resulting educational changes and social distancing measures amid COVID-19 have required many educators to shift their in-person instruction to an online format (Soloman & Soares, 2020), a modality of instruction unfamiliar to many educators (Kennedy & Archambault, 2012; McGarr & McDonagh, 2019).

To remain contemporary in light of an evolving educational landscape, it is important for educators and practitioners to familiarize themselves with online service provision (Firmin & Genesis, 2013), so that they may sustain their delivery of high-quality academic and social-emotional services to students and clients. In doing so, caregivers may experience some reprieve from the unique challenges that arise when educational practices take place almost entirely in the home (National Association for School Psychologists [NASP], 2020a).

Social-Emotional Support in School Settings

Social-emotional learning (SEL) is a process through which students learn to understand and manage their emotions, self-awareness, self-management, social awareness, and develop a healthy problem-solving repertoire. The increasing prevalence of mental and behavioral health concerns for students at-risk for or with an emotional behavioral disorder (EBD) signals the need for increased SEL and mental health-related services in school- based settings (Kieling et al., 2011). Unfortunately, research continues to reveal that school mental health providers receive little guidance in the selection and delivery of these much-needed services (Arora et al., 2019). This finding is alarming considering that a growing body of literature supports the positive impact of universal SEL instruction not only on students' social-emotional competencies, but also their academic achievement and prosocial behavior (Low et al., 2019; Maynard et al., 2015; Taylor et al., 2017).

Indeed, the manner in which a student's disability manifests may hinder their ability to benefit from universal SEL supports, leading some educators to shift their SEL delivery to a more intensive, small-group format with a curriculum programmed around emotion regulation and skill generalization (Green et al., 2018; Walker & Barry, 2018). Despite increased support, many of the barriers to engagement during classroom instruction also present in these small-group psychotherapeutic contexts (e.g., peer presence, environmental distractions). Fortunately, researchers have explicated the strategies shown to increase student engagement in the classroom, which may be amenable to small-group therapeutic settings (Ivy et al., 2017; MacSuga-Gage & Simonsen, 2015; Sutherland & Wehby, 2001), and provided recommendations for conceptualizing client engagement during therapy (e.g., King et al., 2012).

Engagement

Engagement entails active participation in classroom tasks and activities that encourage learning and, in other instances, acquisition of prosocial behaviors (e.g., healthy peer relations; Simonsen et al., 2008). In the aforementioned definition, engagement is portrayed as an interaction between a student and some aspect of their classroom (e.g., teacher, peers, materials). Research on engagement within a therapeutic context is viewed similarly. Specifically, King et al. (2012) conducted a scoping review of the literature on engagement during therapy to clarify the inconsistent manner in which scholars have defined and conceptualized engagement in mental health interventions. Following their review, King et al. conceptualized engagement as involving three components (e.g., affective, cognitive, and behavioral involvement) that stem from client-therapist interactions. Furthermore, through a systematic review of adolescent engagement in mental health settings, Kim et al. (2012) identified attendance as a strong predictor of treatment outcomes and that programmed reinforcement can be effectively used to increase attendance.

Although a wealth of literature supports the effectiveness of traditional, in-person engagement strategies (e.g., Nagro et al., 2018), it is possible that many of these strategies prove less effective in online formats. Accordingly, it is important that the field of education explore the instructional programming necessary to engage students during group-based, psychotherapeutic service delivery, such as SEL instruction.

Evidence Based Strategies to Promote Student Engagement

Scholars have evaluated the relationship between teacher and student interactions to better understand how to increase students' learning outcomes. Different types of instructional formats have shown to promote active engagement among peers, such as small-group discussions and programmed peer-questioning and -interaction (Barkley, 2010; Nguyen et al., 2016; Prince, 2004). Further, peer relations that form during classroom activities have shown to moderate academic engagement (Dishion et al., 1996; Juvonen et al., 2012; Mounts & Steinberg, 1995). Teacher-student interactions also play an important role in student learning opportunities and creating a positive classroom environment (Martin & Collie, 2018). In the following section, we provide a brief review of in-person engagement strategies and applications that capitalize on student interaction and positive reinforcement.

Opportunities to Respond (OTRs)

An OTR is an example of an antecedent strategy that encourages students to participate in classroom instruction. In general, OTRs entail a three-step sequence, where (1) an educator presents a learning opportunity, to which a (2) student responds, followed by a (3) response contingency (Simonsen et al., 2010). To date, most OTRs have focused on teacher-generated stimuli requiring a verbal (e.g., individual or choral; Adamson & Lewis, 2017) student response, such as, "Tell me one thing you liked from the video," or a non-verbal student response in the form of a paper-pencil multiple

choice question or writing an answer on a white board.

OTRs have shown to improve student engagement in classroom activities (Skinner et al., 2005; Nagro et al., 2018), increase academic performance and prosocial behavior (Gettinger & Stoiber, 2014; Simonsen et al., 2008), and decrease disruptive behavior (Haydon et al., 2009). In addition, studies have evaluated different OTR formats (e.g., peer-delivered OTRs; Spence et al., 2003) and OTR rate. Specifically, The Council for Exceptional Children (CEC, 1987) proposed an optimal, minimum OTR rate for students with disabilities at a rate of 4.0 to 6.0 OTRs per minute. In addition, a recent systematic review (MacSuga-Gage & Simonsen, 2015) evaluated studies in which OTR rates were indicated for students in grades 1-11. Their findings revealed that improved student outcomes were observed when educators delivered OTRs at a mean rate of 3.0 to 5.0 OTRs per minute, which closely approximates the CEC's proposed OTR rate. In light of these findings, it appears that educators and school-based professionals should pay close attention to how often they deliver OTRs, especially when considering the effect of OTR rate on students' academic and behavioral outcomes.

Token Economies

A token economy is a strategy through which students earn tokens for engaging in pre-determined appropriate behaviors. Many studies support the use of token economies for students with and without disabilities (Higgins et al., 2001; Klimas & McLaughlin, 2007). Rooted in the principles of positive reinforcement, students exchange their earned tokens for a backup reinforcer that is considered meaningful and preferred. Token economies have several advantages over other reinforcement-based procedures. Specifically, they can be implemented across and modified for various settings and in conjunction with group contingency procedures, while tokens can function as reinforcers across different conditions (Ivy et al., 2017).

Engagement Applications

Technology in the classroom has been progressing for decades (Firmin & Genesis, 2013) with numerous applications (e.g., Nearpod, Flipgrid, Kahoot, Plikers) shown to increase student engagement (Krause et al., 2017; Plump & LaRosa, 2017). For example, Class Dojo (https://ClassDojo.com/) is a free, online token economy system that tracks, manages, and awards students points for demonstrating target behaviors. Class Dojo documents and continuously displays the number of points each student earns throughout an activity, allowing educators to direct more time to instruction rather than periodically reminding students of their progress (Robecker et al., 2017).

A number of peer-reviewed studies support the use of Class Dojo as a class-wide intervention in primary (Dillon et al., 2019), secondary (Lum et al., 2017), and post-secondary classrooms (Rivera, 2019). Using a single case AB design, Maclean-Belvis and Muilenbnurg (2013) evaluated the impact of teacher praise on elementary-aged students' independent work time. Compared to baseline, results indicated that the use of teacher praise and Class Dojo led to an increase in positive behaviors and a decrease in disruptive behavior. It is important to note that these outcomes should be interpreted with caution given the lack of interrater agreement (IRA) and procedural integrity data. More recently, Lynne et al. (2017) conducted a methodologically-sound evaluation of Class Dojo used in conjunction with the Good Behavior Game (GBG), a type of interdependent group contingency. Their study targeted two dependent variables, class-wide disruptive and academically-engaged behavior across two fourth-grade classrooms and one first-grade classroom. Using an ABAB design, the combination of Class Dojo and the GBG resulted in meaningful changes in both target behaviors for each of the three classrooms.

Engagement as a moderator to learning outcomes during in-person instruction may be viewed similarly when instruction delivery is adapted to an online, synchronous format. With student mental health concerns on the rise (Bains & Diallo, 2016) and current limitations to in-person service delivery, it is imperative that educators and practitioners explore how to engage their clients when using telehealth.

Individual Teletherapy

Telehealth is the provision of health-related services through a through Health Insurance Portability and Accountability Act (HIPAA)–compliant videoconferencing platform. The delivery of mental health services through a virtual platform is referred to teletherapy. Although, evaluations of teletherapy for elementary-aged school children are scant, the outcomes of a relatively small number of studies have shown this mode of service provision to be a feasible and acceptable method for delivering individualized, mental health services (Bashshur et al., 2016; Hilty et al., 2013; Stewart et al., 2018). The increased attention directed to individual teletherapy is timely and socially valid, though, even fewer studies have evaluated teletherapy at the group-level.

Group Teletherapy

Notwithstanding the limited research into group-based teletherapy, this line of study is emerging and promising, as seen in the outcomes of two recent systematic reviews. The first review focused on evaluations of telehealth services to increase student health-care access in the school setting (Sanchez et al., 2018), four of which delivered psychoeducational content in the form of videos and

online modules (Izquierdo et al., 2009; Spaulding et al., 2008). Similarly, in the second review (Gentry et al., 2018), the authors limited their search to studies that deployed group-based teletherapy services. Findings from their search revealed 40 published studies characterized by a broad range of study designs, participants, group interventions, and outcome measures. The authors identified studies that used teletherapy to deliver various psychosocial interventions, including cognitive behavioral therapy (Khatri et al., 2014), mindfulness training (Zernicke et al., 2014), and acceptance and commitment therapy (Rayner et al., 2016), as well as to facilitate educational groups in areas of diabetes (Kearns et al., 2012) and smoking cessation (Carlson et al., 2012). Notably, participants in telehealth groups experienced similar treatment outcomes relative to in-person service provision. In terms of group process factors, a number of the identified studies examined the impact of teleconference delivery on therapeutic alliance (Batastini & Morgan, 2016; Frueh et al., 2007; Morland et al., 2010). In each of these studies, participants who experienced teleconference interventions reported small decreases in therapeutic alliance, compared to in-person groups.

Purpose

The present evaluation served two interrelated purposes. The primary purpose of the current study was to ensure continued access to group therapy services. The second purposes was to conduct a preliminary evaluation of three engagement strategies during small-group SEL teletherapy, which included Class Dojo and two formats of OTRs.

Research Questions

1. Can therapists deliver OTRs during teletherapy, as measured by a similar number of OTRs delivered between phases?

2. Does Class Dojo increase student engagement during teletherapy, as measured by an increase in engagement levels?

3. Can therapists track behavioral data and provide performance feedback during teletherapy, as measured by high levels of treatment integrity?

4. Do parents perceive teletherapy effective, as measured by a decrease between their pre-post measures?

Method

Day Treatment Background

Prior to the COVID-19 pandemic, all group therapy lessons occurred in-person at a day treatment program located in a public elementary school district in the Mountain West region of the United States (U.S.). The day treatment program was designed to provide intensive behavioral and mental health support to students who experience the highest risk for emotional and behavioral disorders, both in general and special education. At most, students access services in the program for up to nine weeks (approximately 45 school days). During that time, a team of special educators deliver academic and universal SEL support. Graduate clinicians, supervised by a licensed psychologist and board-certified behavior analyst, developed and provided individualized mental and behavioral health supports and five separate lessons of SEL group therapy per week. Throughout a student's enrollment, day treatment staff provides ongoing behavioral consultation to the student's home-school teacher and administrators to prepare for an efficient and successful transition.

Two weeks following the most recent cohorts' enrollment, COVID-19 was declared a global pandemic and schools announced temporary closures. Each caregiver expressed interest in their child receiving continued support during this time. Thus, shortly after the announcement, the day treatment team obtained parental consent, permitting students' access to group teletherapy services.

Participants

Students

Three elementary-aged students participated in teletherapy services. Chris (pseudonym), a 12-year-old White male with an IDEA classification of Autism, was referred for day-treatment services due to ongoing bouts of physical and verbal aggression, use of profanity, and frequent escalations. Although Chris graduated from the program approximately one month prior to SEL teletherapy, his caregivers expressed interest in receiving additional support during the temporary school dismissal. Albert (pseudonym), a 7-year-old American Indian male with no IDEA classification, was referred for services due to frequent elopement from teacher-designated areas and having experienced a traumatic event two years prior, which led his home-school's mental health provider to give a provisional diagnosis of post-traumatic stress disorder (PTSD). Albert graduated from day- treatment services approximately one month prior to the temporary school dismissal and expressed interest in participating in group teletherapy with the day treatment team. Tim (pseudonym), who was also Albert's sibling and a 5-year-old American Indian male with no IDEA classification, was referred for day-treatment services due to social-emotional and behavioral regulation difficulties, decreased academic engagement, elopement, and exposure to the same traumatic event witnessed by Albert. Tim was enrolled in the program for two weeks prior to the temporary school dismissal.

Therapists

Three second- and third-year school psychology doctoral students and one post-doctoral school psychologist served as therapists. Therapists received training in teletherapy

and social-emotional content prior to study procedures. The therapist's primary role was to facilitate lesson content and related activities with the help of a co-therapist. In addition, the lead therapist was responsible for coding students' percentage of engagement for each of their digitally recorded lessons. All therapists and co-therapists received weekly supervision from the fifth author, director of the day-treatment program, a licensed psychologist and BCBA-D.

Research Assistant

One undergraduate research assistant (RA) was responsible for coding digital recordings of each lesson for purposes of interobserver agreement (IOA). The RA received training in behavior coding procedures prior to coding lesson videos for IOA.

Setting

Two graduate-level clinicians led each group therapy lesson within a quiet and private room of their home. Similarly, each student was located at their homes, either in a bedroom, kitchen, or living room. Albert and Tim most often received teletherapy in either their kitchen or bedroom; when they were observed in their kitchen, adults and other children were occasionally present. Albert and Tim often interacted with each other, especially when the locations where they attended the teletherapy were close. Chris received teletherapy in the privacy of his room with no one else present. At times, Chris appeared to engage in off-task behaviors (e.g., surfing the internet) during lessons.

Teletherapy Materials
Hardware and Technology

Each therapist used their personal laptop to facilitate teletherapy. Prior to each lesson, therapists activated the Zoom recording function for weekly supervision with a licensed psychologist and data collection. Therapists uploaded each digitally recorded lesson to a Health Insurance Portability and Acceptability Act (HIPAA, 1996) and Family Educational Rights and Privacy Act (FERPA, 1974) compliant online storage platform (e.g., Box). Two students attended lessons using their district-issued tablet, whereas one student used a desktop computer.

Teletherapy Manuals

Therapists adapted their lesson plans from two, age-appropriate group therapy manuals grounded in SEL-related content: Strong Start: A Social & Emotional Learning Curriculum, second edition (Whitcomb & Damico, 2016), and A Still Quiet Place: A Mindfulness Program for Teaching Children and Adolescents the Ease Stress and Difficult Emotions (Saltzman, 2014).

Data Collection Materials
Behavioral Coding

Immediately following each lesson, the respective therapist used pencil and paper to code behavioral data for each of their digitally recorded lessons. Coding sheets included three columns for each student. In the first column, therapists indicated if they issued an OTR (i.e., frequency of OTRs). In the second column, the therapist documented whether the student engaged with the OTR (i.e., frequency of engagement). If the student did engage, the therapist indicated in the third column whether the student received a Class Dojo point. All data were subsequently transferred to an online Excel data collection sheet.

Pre and Post Measures

Prior to and immediately following teletherapy, a therapist emailed each caregiver the Strong Kids Symptom Test (SKST; grades 3-8; parent form), a 10-item measure of students' negative affect and internalizing problems. Caregivers responded to each question on a four-point Likert scale (1 = never; 4 = often true), then emailed the form back to the therapist. The SKST has demonstrated moderate reliability (.70 to .80; Merrell et al., 2008) and strong convergent validity (.70 to .88) with established social-emotional self-rating scales, including the Children's Depression Inventory (Knight et al., 1998) and Internalizing Symptoms Scale for Children (Merrell et al., 2002). For two of the students, therapists adapted some of the verbiage in the SKST to account for their grade-level.

Operational Definitions
OTRs

OTRs were delivered in two ways: therapist-delivered and student-delivered. A therapist-delivered OTR was defined as a direct statement to engage in or respond to lesson content (e.g., "Albert, tell me one thing you learned from our lesson."). A student-delivered OTR was defined as Albert or Chris issuing a direct statement or a asking a question to one of the other group members to promote engagement in the lesson's content. We included the use of questions in the operational definition of student-delivered OTRs to help them vocally initiate peer engagement.

Student Engagement with Therapists

Student engagement with therapists was defined as a student providing an appropriate verbal or behavioral response to a therapist's or co-therapist's OTR. Examples of an appropriate behavioral response include: looking at the camera upon a directive, giving a thumbs up, providing a head nod, engaging in a therapist- directed activity (e.g., deep breathing exercises), or using a Zoom function (e.g., chat, emoji response) to communicate. Examples of an appropriate verbal response include verbalizations, such as "yes" or "no". Percentage of engagement with therapists was calculated by dividing the number of instances each student successfully engaged with a therapist-delivered OTR by the total number of therapist-

delivered OTRs issued in a lesson, then multiplied by 100.

Student to Student Engagement
Albert and Chris. Student to student engagement was defined as a student delivering an OTR to another student following a therapist's directive to do so. In this fashion, student-delivered OTRs could take the form of either a question or a directive. Percentage of engagement with students was calculated by dividing the number of instances in which Albert and Chris delivered an OTR to another student by the total number of instances a therapist prompted Albert and Chris to deliver an OTR, multiplied by 100. This dependent variable did not apply to Tim due to his continued, low levels of engagement with therapists. In addition, we report the results of this outcome variable descriptively, as opposed to embedded in a figure.

Student Engagement with Students and Therapists
Tim. For Tim only, engagement with students and therapists was defined as an appropriate verbal or behavioral response to either a therapist- or student-delivered OTR. Percentage of engagement with students and therapists was calculated by dividing the number of instances Tim successfully engaged with a therapist- or student- delivered OTR by the total number of OTRs delivered to Tim in a lesson, then multiplied by 100.

Treatment Integrity
Treatment integrity consisted of a seven-step checklist, some of which needed to be completed prior to and during each lesson. Each therapist completed the first two steps prior to each lesson, which included setting up Class Dojo and Zoom. Therapists completed the remaining five steps throughout the lesson, which included reviewing how to earn Class Dojo points and the available rewards with students, identifying earned rewards approximately half-way through each lesson, and providing behavior-specific praise (BSP) and Class Dojo points contingent on appropriate responses to OTRs.

Procedures
A therapist obtained a telehealth consent form from each student's caregiver via email prior to initiating services. Similarly, caregivers received a teletherapy schedule via email detailing days and times that lessons would occur as well as lesson topics. Following, one therapist and co-therapist facilitated teletherapy five days per week over the course of four weeks using the combined SEL and mindfulness manuals.

Group Rules and Virtual Rewards
We conducted a virtual meeting with all three students to identify preferred virtual rewards and to establish group rules. Due to the nature of remote service delivery, rewards needed to be feasible such that each student would be able to engage with each reward. The first author asked each student to identify three rewards that could be delivered online and were free of charge. The therapist then facilitated a discussion about group rules and solicited potential rules from each student, which included: (a) wait your turn to speak; (b) raise your hand to be called on; (c) what is said in group stays in group; and (d) keep your hands, feet, and other objects to yourself (KYFOOTY). In addition to the primary group rules, the therapist discussed rules for using Zoom, which included (a) mute your microphone when other members are speaking or until you are called on and (b) keep your camera on at all times.

Following the meeting, the therapists met virtually to decide the appropriateness of each reward and familiarize themselves with the group rules. The finalized list of 5-min rewards included: (a) YouTube video (e.g., hydraulic press compilation, race cars), (b) national geographic animal quiz (https://kids.nationalgeographic.com/games/quizzes/), (c) game of eye spy within each members' residence, (d) a game of tic-tac-toe using Zoom's white board feature, and (e) a game of show and tell using personal items within student' residence. Prior to each lesson, the therapist added each reward to a modifiable, online digital spinner (http://www.superteachertools.us/spinner/) that randomly determined which reward students earned.

Teletherapy
Each lesson lasted approximately 30 min with the last 5 min devoted to a group reward using the digital spinner. During the first lesson, the therapist explained how students were able to earn Class Dojo points, reviewed group rules, and explained that reward attainment was contingent upon attendance only. The only form of reinforcement that remained constant across all phases was BSP for engagement.

Phase 1: Baseline
Baseline consisted of five lessons delivered across one school week. During baseline, therapist-delivered OTRs to students in the form of a directive and verbally provided BSP immediately following students' appropriate response to each OTR. The Class Dojo contingency was not in effect during baseline. After the fifth lesson, the first author viewed each digitally recorded lesson and calculated the frequency and range of OTRs delivered to each student. This data guided the frequency and range of OTRs that therapists delivered in the subsequent phase.

Phase 2: Class Dojo
This phase included a total of five lessons delivered across one school week. All procedures remained the same except students received one Class Dojo point and verbal BSP following their engagement with a therapist- delivered OTR. To illustrate, following a student's successful response to

an OTR, the therapist verbally announced that the student had earned a Class Dojo point, signaling the co-therapist to document the point, which, when delivered produced an audible "ding". Therapists indicated the number of points each student earned half-way through each lesson and remained mindful to facilitate engagement opportunities in a natural fashion. Importantly, students need only to attend the lesson to experience the virtual, group reward at the end of lesson, rather than having to meet a Class Dojo point criterion.

Phase 3

The procedures in phase 3 for Albert and Chris were different compared to those for Tim, which is described below.

Albert and Chris: Withdrawal. In Phase 3, The Class Dojo contingency was withdrawn for engagement with therapist-delivered OTRs. Albert and Chris continued to receive BSP for engagement and the group reward for their attendance. In other words, the only form of reinforcement Chris and Albert received was BSP for engagement and, for their attendance, the group-reward at the end of lesson.

Tim: Class Dojo + Student OTRs. Due to Tim's lack of response to the Class Dojo contingency, the therapists aimed to increase his engagement through an additional intervention component, student-delivered OTRs. Specifically, the Class Dojo contingency remained in effect for the remaining 14 lessons, during which Tim earned a Class Dojo point and received BSP for engaging with either therapist-delivered or student-delivered OTRs. The first author held one, 20-min virtual meeting with Albert and Chris to provide a brief training on how to deliver OTRs, which followed a behavior skills training (BST; Crane, 1995; "tell, show, do") model.

Interrater Agreement (IRA)

Agreement data were collected for 33% of lessons, which assessed (a) therapists' integrity of lesson procedures, (b) frequency of therapist-delivered OTRs and (c) frequency of student-delivered OTRs, and (d) students' percentage of engagement. One RA independently viewed and coded each digitally recorded lesson. Following, the RA's code was compared to the therapists' code. Exact IRA was calculated by dividing the number of agreements between the two observers by the number of agreements plus disagreements then multiplied by 100 (Cooper et al., 2020).

Therapists adhered strongly to therapy programming, with a high mean integrity of 94.74 (SD = 0.07). Mean IOA values for Chris's engagement during Phase 2 was 83.33% (SD = 0.40) and 100% during Phase 3. The mean IOA value for Albert's and Tim's engagement during Phase 2 and Phase 3 was 100%. Mean IOA values for the number of therapist-delivered OTRs in Phase 2 and Phase 3 for Chris was 83.33% (SD = 0.40), and 100% for both Tim and Albert. Mean IOA values for the number of student-delivered OTRs in Phase 3 was 75% (SD = 0.05) for Albert and Chris. Lastly, the mean treatment integrity IOA value was 98.00 (SD = 0.05)

Analysis and Design

For Albert and Chris, an A-B-A design to assess the effect of the Class Dojo contingency on student engagement with therapist-delivered OTRs. For Tim, an A-B-C design was used to assess the additive effect of student-delivered OTRs on his engagement. Although an A-B-C design does not allow for a determination of treatment effect, educators often use this design to evaluate student response to interventions. For Albert and Tim, at least five data points were collected for each phase (Kratochwill et al., 2013).

Tau-U effect sizes (ES) were calculated to measure the extent to which the Class Dojo contingency resulted in changes in engagement between phases. Separate ESs were calculated for each student. Tau-U ESs of .20 and below are considered weak, moderate scores range between .20 to .60, large scores span between .60 and .80, and scores at or above .80 indicate a very large effect (Vannest & Ninci, 2015). Visual analysis also served as a means for analyzing data, which consisted of evaluation in changes across trend, level, variability, and immediacy of effect between the two phases (Kratochwill et al., 2013).

Results

Albert

Albert displayed variable levels of engagement with therapist-delivered OTRs (M = 75.4 %; range: 63.6 - 87.7%) during baseline (see Figure 1). When Class Dojo was introduced in Phase 2, Albert's engagement immediately increased in level and trend across the five lessons he attended (M = 93.1 %; range: 88.8 - 100%). Introducing Class Dojo has a large effect on Albert's engagement (Tau-U = 1.00). During the withdrawal phase, Albert's engagement with therapist-delivered OTRs decreased initially, then increased in level and remained high but variable for the following 13 lessons he attended (M = 92.9 %; range: 78.0 - 100%). The removal of Class Dojo had no effect on Albert's engagement (Tau-U = 0.09).

Figure 1. Albert's Engagement during Teletherapy

Regarding student-to-student engagement, therapists prompted Albert to deliver an OTR to another group member a total of 72 times in phase 3. Of those prompts, Albert successfully delivered OTRs on average 94.9% (range: 80-100%), which remained high yet variable for the remainder of therapy.

Chris

On average, Chris displayed variable levels of engagement

with therapist-delivered OTRs (M = 76.2%; range: 78.6 - 83.3%) across three of the five lessons he attended during baseline (see Figure 2). Following the implementation of Class Dojo, during which students were able to earn points for engaging with therapists, Chris demonstrated an abrupt increase in engagement (M = 100%; Tau-U = 1.00), which remained consistent for the three lessons he attended. During the withdrawal phase, when the Class Dojo contingency was no longer in effect, his engagement with therapists remained at 100% (Tau-U = 0.12), which indicated no effect. In terms of student-to-student engagement, therapists prompted Chris to deliver an OTR to another group member a total of 37 times in phase 3. Of those prompts, Chris successfully delivered OTRs on average 96.5% (range: 83-100%), which remained high for the remainder of therapy.

Tim

On average, Tim displayed low, variable levels of engagement (M = 50.0%; range: 37.5 - 54.17%) during baseline (see Figure 3). Following the introduction of the Class Dojo contingency, Tim's level and variability of engagement was comparable to baseline, but ended on an upward trend during the last two lessons (M = 60.0%; Tau-U = .60), indicating a moderate effect. In Phase 3, when both students and therapists delivered OTRs, Tim displayed an immediate a delayed, abrupt improvement in engagement (M = 80.04 %; range: 56-100%) that followed an increasing yet variable trend across all remaining lessons. As seen in the third phase, the introduction of student-delivered OTRs had a strong effect on Tim's engagement (Tau-U = 0.83).

OTR Range

Table 1 displays the average number and range of therapist- and student-delivered OTRs per lesson during baseline, phase 2, and phase 3. On average, therapists delivered a higher number of OTRs during baseline lessons, relative to the number of OTRs delivered in subsequent phases, which were fairly consistent. Albert and Chris delivered a relatively similar number of OTRs to group members during Phase 3.

Pre and Post SEL Measures

Caregivers completed the Strong Kids Symptom Test (parent form) before and after therapy. Table 2 displays each caregivers' pre- and post-measure data for their child.

Overall, small decreases in symptom severity were observed for Albert and Chris, whereas Tim's caregiver reported a small increase in symptom severity. An item-specific analysis informs where exact changes in symptom severity occurred. For Chris, scores for each question either remained the same or decreased between pre-post measures, except for item 4 which revealed that his caregiver reported a small increase in property destruction. Changes in Albert's scores across each item varied, with a notable decrease in property destruction (item 4) and small increase in difficulty problem solving (item 2). For Tim, his caregiver reported a notable increase in arguing (item 3) and worrying (item 5), which was a significant contributing factor for the five-point increase in his total score.

Discussion

The purpose of this exploratory case study was to assess the extent to which two engagement strategies (e.g., Class Dojo and OTRs) would help elementary-aged students at-risk for EBD to engage during group teletherapy. Overall, Albert and Chris displayed acceptable to very high rates of engagement at the beginning and throughout teletherapy, with meaningful increases in engagement following the introduction of Class Dojo. Tim, however, initially struggled to engage, with minor improvements following the Class Dojo contingency. It was not until Albert and Chris delivered OTRs that Tim's rates of engagement steadily increased. Importantly, attendance rates were high for each student, with Chris missing the most lessons due to conflicts with his online classroom schedule. High rates of attendance during group teletherapy may indicate that the students perceived certain aspects of our programming as reinforcing; however, the novelty of this line of study leaves much to be said in terms of detailing the specific components that resulted in treatment outcomes and teletherapy engagement. In the following sections, we describe our teletherapy programming in greater detail and discuss the use of technology during teletherapy as it relates to the outcomes profiled in the current case study.

Class Dojo during Teletherapy

Consistent with prior Class Dojo research (Dillon et al., 2019; Lum et al., 2017; Rivera, 2019), Albert and Chris engagement with therapist-delivered OTRs increased following the introduction of Class Dojo contingency. When the contingency was removed for these two students, they continued to engage at high levels with therapists. Continued engagement during the reversal phase may have resulted from the continued delivery of BSP, which was the only source of reinforcement that remained constant across phases. Although this lack of functional control hinders our ability to determine the extent to which Class Dojo resulted in increased engagement, the high rates of attendance and high levels of engagement observed are socially valid and practically relevant.

Regarding treatment integrity, therapists strongly adhered to teletherapy procedures, especially with regard to the use of Class Dojo. For 23 of the 24 lessons, a co-therapist moderated Class Dojo, documenting each instance the therapist verbally signaled that a student had earned a point. During the one lesson, in which the co-therapist was unavailable, the

therapist was responsible for all teletherapy procedures (e.g., delivering OTRs, providing BSP, documenting Class Dojo points, and reward time). The therapist adapted by having three windows open on his computer to simultaneously moderate Class Dojo through its website, conduct teletherapy via Zoom, and review the lesson plan in a word document. Fortunately, the therapist had dual monitors that allowed him to position the Class Dojo website on a separate monitor, thus, freeing up what would have been a very cluttered, single screen. Even with dual monitors, the therapist found it challenging and mildly disruptive to provide points because it required him to momentarily pause the group to access the Class Dojo screen, document the point, then return to the lesson. Although it is possible for one therapist or educator to facilitate all teletherapy procedures detailed in this study, the co-therapist played an instrumental in the seamless allocation of points during teletherapy.

OTRs during Teletherapy

While the absence of a true baseline for OTRs precluded our ability to evaluate a functional relation between OTRs and student engagement, the results of the current study provide preliminary evidence that, for the students in the current study, OTRs delivered during group teletherapy have potential to increase students' rate of engagement. Meaningful improvements in Tim's engagement were observed when therapists and students delivered OTRs, compared to therapists' only. Tim's improved engagement in light of increased OTRs parallels the findings of prior student-engagement research (Jones et al., 2008; Nguyen et al., 2016). Had we removed reinforcement for engagement with therapist- and student-delivered OTRs (i.e., reversal), evidence of a functional relationship may have resulted, though, at the expense of therapeutic gains.

Delivering OTRs during teletherapy was feasible; however, one aspect of their delivery that merits discussion regards the therapist's lack of control over each students' environment. Obtaining the attention of a student plays an important role in OTR effectiveness. Oftentimes, student attention is easily influenced by the environmental stimuli present in the learning environment, such as noise or other distractions. Despite the students' and therapists' best efforts to establish a private and quiet location, there were numerous lessons when family members were observed talking in the background, siblings running around nearby rooms making noise, and, on occasion, a caregiver asking the student a question during a lesson. In these situations, delivering OTRs sometimes required the therapist to redirect and repeat. To the greatest extent possible, students should experience teletherapy in a private area devoid of distractions. To accomplish this, we recommend that the therapist discuss with each caregiver the importance of privacy, confidentiality, and how distractions have the potential to hinder treatment gains.

Teletherapy Attendance

Albert and Tim attended 23 out of the 24 lessons delivered, whereas Chris attended 14 lessons. Prior to the first lesson, students were informed that reward access was solely contingent upon logging into the therapy lesson. It is challenging to determine why attendance rates were so high, given the non-experimental design used. It is possible, however, that high rates of attendance were attributed to one of three factors: (a) Albert and Chris having graduated from day-treatment services with positive outcomes, (b) social deprivation amid social distancing protocols and temporary school closures, or (c) caregivers' encouragement to attend the lessons. In any case, each factor provides educators with guidance on the contextual variables that have potential to increase teletherapy attendance.

Virtual Rewards

Student-determined, virtual rewards were feasible to utilize during the last five minutes of each lesson. First and foremost, anecdotal evidence suggested that the students highly preferred the digital spinner, evidenced by their verbal expressions of interest and excitement and nonverbal behaviors (e.g., physical excitement, smiling, clapping). Secondly, in a virtual setting, it is paramount that students are able to engage with the reward, which can easily turn into a challenging endeavor. The rewards in this study included National Geographic ® animal quiz, show-and-tell, eye spy, tic-tac-toe on the Zoom whiteboard function, and preferred YouTube videos shared via the Zoom share screen feature. YouTube videos were the most feasible and most sought-after reward; however, collectively agreeing to one video did pose a challenge at times. When a dispute occurred, the therapist would either (a) present two videos lasting two and one-half minutes each, totaling five minutes or (b) ensure that the other video would be presented the next time a YouTube video is selected as a reward.

The most challenging reward was tic-tac-toe. This reward requires a one-on-one interaction, meaning that other students must wait for their turn. In addition, the whiteboard function was added to Zoom as part of a recent update. The students in the current study were unable to engage with the whiteboard, requiring the therapist to heavily facilitate the game at the expense of student engagement. It is possible that if each student had the most recent version of Zoom, this issue would not have occurred. Even so, some students may require additional training or guidance on how to use some of the more advanced Zoom functions, such as the whiteboard.

Implications

Educators must continually engage in online instruction to deliver a positive educational experience to their students. Higher levels of comfort with and competency in online instruction has the potential to aid educators (e.g., teachers, school psychologists, paraeducators) in their delivery of evidence-based instruction and antecedent/consequent strategies commonly delivered within in-person educational settings. It is natural for anyone practicing or working in a new environment to perceive their efforts as too rigid or stilted. As with any new skill, it is important to engage in deliberate and repetitive practice to achieve a level of automaticity and fluency (Brabec, 2020) consistent with that of what a seasoned educator would likely exhibit.

With little empirical research to draw from, educators and clinicians may feel lost in their new role facilitating an online teaching space. The present study demonstrated that students with behavioral and emotional challenges can demonstrate high levels of engagement during teletherapy, and the feasibility of using various engagement strategies (e.g., OTRs, Class Dojo, peer interaction) in an online format. When in-person delivery is neither advised nor permitted, students with acute social-emotional and behavioral needs can continue to receive necessary services through telehealth, as shown in the current case study. Furthermore, although programming increased peer interactions during online instruction may seem daunting, there are strategies available to teachers or clinicians who provide remote instruction to larger numbers of individuals. For example, Zoom includes a break-out-room function that allows the teacher to allocate students to different groups and designate specific group sizes. In order to moderate group activities, a co-therapist or paraeducator with administrative Zoom capabilities can move between groups to ensure continued monitoring. Although this may not be an ideal or feasible approach for some, the following section provides suggestions for future research into the use of engagement strategies during online instruction.

Limitations and Future Studies

The results of the current study should be interpreted in light of some limitations. First, the ABA and non- experimental ABC design did not meet What Works Clearinghouse (WWC; Kratochwill et al., 2013) single case design standards, which precluded us from observing a clear functional relationship between engagement strategies and student outcomes. Future studies should consider using a more rigorous research design (e.g., multiple baseline) with a larger sample of students while remaining mindful of the impact phase reversals may have on students' treatment or educational gains. In addition, the high numbers of OTRs issued during baseline hindered our ability to address the first research question related to the feasibility of delivering OTRs in a virtual space. Although we defined OTRs as a directive to engage, the high number of OTRs delivered during baseline resulted from therapists' issuance of questions and directives. Therapists modified their OTR delivery during subsequent phases by delivering them in the form of directives only.

Second, there are issues related to external validity. Although we did obtain caregiver-report on their child's behavior following teletherapy, a more valid metric of skill generalization, such as direct observation of the students' improvement in the home or classroom setting, would be beneficial.

The third limitation regards the lack of control each therapist was able to exert over the teletherapy setting, particularly the students' home environment. Notwithstanding this notable limitation, successful demonstrations of engagement were observed. If possible, future studies should ensure a discussion with caregivers takes place regarding the importance of providing their child with a quiet and private learning environment and provide recommendations to caregivers if they question the feasibility of such a task.

The fourth limitation regards the lack of baseline IOA. Unfortunately, the links to recorded baseline videos on the online storage platform expired, which underscores the importance of taking multiple precautions when handling digitally recorded data. Lastly, although not a limitation, future studies should consider exploring the impact of different technologies on student engagement, such as Plickers®, Kahoot, Flipgrid, and Nearpod.

Conclusion

With increased demands for online therapy and other social-emotional supports, school-based service providers (e.g., school psychologists, social workers, school counselors, educators) should continue to learn innovative digital strategies to support students who receive special education services in an online format. Online engagement can be challenging, but the results of the current study suggest preliminary support for the use of two engagement strategies during group teletherapy for students at-risk for EBD. The current study is an initial attempt to explore engagement strategies during online instruction. As the line of study continues to grow, more convincing outcomes and guidance on how to engage both neurotypical and elementary-aged students at-risk for EBD will hopefully result.

Aaron Fischer's Curriculum Vitae

Aaron J. Fischer, PhD, BCBA-D, LP, LBA
Department of Educational Psychology
1721 Campus Center Drive, SAEC 3220
University of Utah
Salt Lake City, Utah, 84112
Telephone: (801) 587-1842
Email: aaron.fischer@utah.edu
Website: http://www.u-tteclab.com

Ph.D., School Psychology, Louisiana State University, Baton Rouge, LA, August 2014

M.A., School Psychology, Louisiana State University, Baton Rouge, LA, May 2012:

B.A., Psychology, University of Miami, Coral Gables, FL, December 2008

Professional License and Certification
Board Certified Behavior Analyst-Doctoral Designation (BCBA-D; 2014 to Present), Behavior Analyst Certification Board Inc. Certificate # 1-14-16345, BACB Approved Supervisor

Licensed Psychologist, State of Utah, (2015-Present) License # 9139276-2501

Licensed Behavior Analyst, State of Utah, (2015-Present License # 9139276-2506

Academic Experience
Dee Endowed Professor of School Psychology (July 2018 to present), Department of Educational Psychology | College of Education, University of Utah, Salt Lake City, UT

Adjunct Assistant Professor of Child Psychiatry (July 2015 to present), Department of Psychiatry | School of Medicine, University of Utah, Salt Lake City, UT

Associate Professor of School Psychology (July 2021 to present), Department of Educational Psychology | College of Education, University of Utah, Salt Lake City, UT

Assistant Professor of School Psychology (August 2014 to July 2021), Department of Educational Psychology | College of Education, University of Utah, Salt Lake City, UT

Clinical Experience
Director, Pediatric Feeding Disorders Clinic (July 2015 to Present), University of Utah Neurobehavior HOME Program, Salt Lake City, UT

Psychologist and Behavior Analyst (January 2015 to Present) Private Practice, Salt Lake City, UT

- Provided Independent Psychoeducational Evaluations for school districts across Utah
- Provided parent training and behavioral assessment and intervention for families and their children, across Utah

Research Experience
Co-Director (August 2020-Present), Salt Lake City, UT
Utah School Mental Health Collaborative, Department of Educational Psychology | University of Utah College of Education, Department of Psychiatry | University of Utah Huntsman Mental Health Institute

Director (August 2014-Present), Salt Lake City, UT
U-TTEC Lab: Training in Technology, Education, and Consultation, Department of Educational Psychology University of Utah

Program Evaluator, Grant Funded Position (September 2018-2023), Salt Lake City, UT, Mountain Plains Prevention Technology and Transfer Center (MP-PTTC), Substance Abuse and Mental Health Services Administration, Department of Health and Human Services, ($3,500,000; funding period 2018-2023). Principal Investigator: Burrow-Sánchez, J. J.

Supervision Experience

University of Utah (August 2014-Present)

» Provided LP and BCBA practicum supervision for students enrolled in Special Education and School Psychology Master's and Doctoral programs.

Student Evaluation Committees

Doctoral Dissertation: N = 38

» Chair: N = 18

» Committee member: N = 20

BCBA Master's Committee: N = 10

Professional Affiliations

» Association for Positive Behavior Supports (2017-Present

» Association for Professional Behavior Analysts (2016-Present)

» Utah Psychological Association (2015-Present)

» Utah Association of School Psychologists (2015-Present)

» American Psychological Association Full Member (2011-Present)
APA Division 16: School Psychology (2013-Present)
APA Division 54: Pediatric Psychology (2015-Present)

» National Association of School Psychologists (2010-Present)

» Association for Behavior Analysis International (2008-Present)

» Utah Association for Behavior Analysis (2014-Present)

Awards Received

» University of Utah Community Teaching and Scholarship Award (May 2023)

» University of Utah Online Excellence Award (August 2020)

» College of Education Junior Faculty Service Award (May 2020)

» Celebrate U Research Award (April 2020)
Dee Endowed Professor of School Psychology (July 2018)

Books (N = 1)

Fischer, A. J. & Bloomfield, B. (January, 2024). Teleconsultation in Schools: A Guide to Collaborative Practice. American Psychological Association.

Edited Volumes (N = 2)

Fischer, A. J., Collins, T., Dart, E. H., & Radley, K. (Eds.) (2019). Technology Applications in School Psychology Consultation, Supervision, and Training. New York: Routledge.

Luiselli, J. K. & Fischer, A. J. (Eds.) (2016). Computer-Assisted and Web-Based Innovations in Psychology, Special Education, and Health. New York: Academic Press/Elsevier.

Book Chapters (Student collaborators are bolded; N = 14)

Fischer, A. J. & Bloomfield, B. S. (in preparation) Teleconsultation and Virtual Delivery. In A. Garbacz, D. Newman, W. Erchul, and S. Sherdian (Eds). A Handbook of Research in School Consultation: Empirical Foundations for the Field (Third Edition). New York: Routledge

Roberts, M., Chang, A., McCoy E., ***King, H.,*** Fischer, A. J., & Kazemi., E (in-press). Supporting Individuals on the Autism Spectrum through Robotics and Virtual Learning. In P. Sturmey, R. Lang, & J. K. Luiselli (Eds.). Lifespan Treatment of Autism Spectrum Disorder: An Evidence-Based Guide for Professionals and Families. Oxford University Press.

Fischer, A J., & Bloomfield, B. S. (In Press). Best Practices in Virtual Mental Health Services by School Psychologists. In Harrison, P. L., Proctor, S. L., & Thomas, A. (Eds). Best Practices in School Psychology 5th edition.

King, H. C., Lewis, H., Martone, L. E., & Fischer, A. J. (2022). Fading procedures in the treatment of mealtime behaviors. In J. H. Cihon, L. Tereshko, K.B. Marshall, & M. J. Weiss, (Eds.). Behavior analytic approaches to promote enjoyable mealtimes for individuals with autism and their families. Vernon Press.

King, H. C., Aaron, J. F., ***Lewis, H. J. L., & Payan J.*** (2021). Peer modeling interventions. In Collins, T. A., & Hawkins, R. O. (Eds.). Peers as change agents: A guide to implementing peer-mediated interventions in schools. Oxford University Press.

Fischer, A. J., ***Silberman, M., Perez, L., & Omlie, C.*** (2019). Seclusion and Restraint as an Emergency Crisis Response. In K. C. Radley & E. H. Dart (Eds). Handbook of Behavioral Interventions in Schools: Multi-Tiered Systems of Support. Oxford University Press.

Fischer, A. J., & ***Bloomfield, B.,*** (2019). Using Technology to Maximize Engagement and Outcomes in Family-School Partnerships. In S. A. Garbacz (Ed). Implementing Family-School Partnerships: Student Success in School Psychology Research and Practice. New York: Routledge.

Fischer, A. J., ***Lehman, E., Jensen, N.,*** & Davis, H. (2019). School Psychology and Education Professionals. In R. D. Rieske

(Ed). Handbook of Interdisciplinary Treatments for Autism Spectrum Disorder. New York, NY: Springer Publishing.

Bloomfield, B., Lehman, E., Clark, R., & Fischer, A. J. (2019). School-based teleconsultationapplications. In A. J. Fischer, T. Collins, E. Dart, & K. Radley (Eds). Technology Applications in School Psychology Consultation, Supervision, and Training. New York: Routledge.

Fischer, A. J., ***Clark, R., Lehman, E.,*** (2019). Telepresence robotics and consultation. In A. J. Fischer, T. Collins, E. Dart, & K. Radley (Eds). Technology Applications in School Psychology Consultation, Supervision, and Training. New York: Routledge.

Erchul, W. P., & Fischer, A. J. (2018). Consultation. In S. L. Grapin & J. H. Kranzler (Eds.), School psychology: Professional Issues and Practices. New York, NY: Springer Publishing.

Invited Publications (N = 2)

Fischer, A. J. (2020). Telehealth to Support Students, Families, and Educators Across School Psychology Practice. The School Psychologist, 74, 17-25.

Fischer, A. J., Erchul, W. P., Schultz, B. K. (2018). Teleconsultation as the New Frontier of Educational and Psychological Consultation: Introduction to the Special Issue. Journal of Educational and Psychological Consultation, online first, 1-6.

Peer Reviewed Publications (N = 41; Student collaborators are bolded)

King, H. C., Fischer, A. J., Radley, K. C., Davis, J., Houlihan, D., & Jenson, W. (accepted). Caregiver training on antecedent strategies to increase children's compliance with caregiver requests. Journal of Behavior Education.

Radley, K. C., Fischer, A. J., ***Dubrow, P. V., Mathis, S., & Heller, H.*** (accepted). Reducing Teacher Burnout Through Effective Classroom Management. Journal of Behavior Education.

Martone, L., King, H., Fischer, A. J., & ***Cornejo, P. A.*** (accepted). Towards an Inclusive Research Laboratory Climate in School Psychology Graduate Programs. School Psychology Training and Pedagogy

Krach, S. K., Dixon, R. J., Bloomfield, B. S., Fischer, A. J. (accepted). Unanticipated Effects of a Pandemic: Changes in Beliefs About Online Education in School Psychology. School Psychology Training and Pedagogy.

Maldonado, A. F., Jensen, R. L., & Fischer, A. J. (2023). Cultural and Linguistic Adaptations: Equitable Accessibility to an Evidence-Based Intervention for Diverse Caregivers. Ciencias de la Conducta/Behavioral Sciences Journal, 38(1), 41-55.

Colonna, A., Nirula, R., Robbins, R. B., Engel, B. T., Creem-Regehr, S. H., Patterson, B., Fischer, A.J., Stefanucci, J. K. (2022). Trauma Bay Virtual Reality - A Game Changer for ATLS Instruction and Assessment. The Journal of Trauma and Acute Care Surgery, 93, 353-359. doi: 10.1097/TA.0000000000003569

Lundy, K., Wenzbauer, A., Illapperuma, C., Fischer., A. J., ***Feng, M., Jensen, R., Maldonado, A., Mathis, S., Meservy, J., & Heller, H.*** (2022) Evaluating the Acceptability and Social Validity of a Caregiver-Led Technology-Based Menstrual Hygiene Management Intervention for Youth on the Autism Spectrum. Advances in Neurodevelopmental Disorders. https://doi.org/10.1007/s41252-022-00261-x

King, H. C., Wu, S., Bloomfield, B. S., Fischer, A. J. (2022). Supporting Caregivers and Educators Through Problem Solving Teleconsultation. Journal of Educational and Psychological Consultation.

King, H. C, Miller-Johnson, K., McCulla, K., Fischer, A. J., Wu, S., & ***Miller, M.*** (2022). A preliminary evaluation of a digital token economy to increase student engagement during group teletherapy. International Journal of Technology in Education.

King, H. C., Howarth, R., ***Choi, S. R.,*** Fischer, A. J. (2022). Using teleconsultation-enhanced treatment for avoidant/restrictive food intake disorder in an adolescent male. Child and Family Behavior Therapy, online first.

Bloomfield, B. S., Fischer, A. J., Dove, M., ***Clark., R. R., Fife, M.*** (2021). Parent Teleconsultation to Increase Bites Consumed: A Demonstration Across Foods for a Child with ARFID and ASD. Behavior Analysis in Practice, online first.

King, H., Bloomfield, B., Wu, S., & Fischer, A. J. (2021). A Systematic Review of School Teleconsultation: Implications for Research and Practice. School Psychology Review, 51:2, 237-256, DOI: 10.1080/2372966X.2021.1894478

Conradi, L. A., Jameson, M. J., Fischer, A. J., ***Farrell, M., Eichelberger, C., Ryan, J., Fudge, O., & Bowman, J.*** (2020). Effects of the Good Behavior Game on Students with Severe Disabilities. Education and Training in Autism and Developmental Disabilities, 56, 454-465.

King, H.C., Bella, Z., Lewis, H., Payan, J., & Fischer, A. J. (2020) The Survey of Rewards for Teen-Revised: A brief psychometric report and assessment of reward preferences in STEM education. Child and Family Behavior Therapy, online first, DOI:10.1080/00168890.2020.1848409

Kladis, K., Hawken, L., O'Neill, R., Fischer, A., ***Stokes, K.,*** O'Keeffe, B., & Kiuhara, S. (2020). Effects of check in, check-out on internalizing behaviors in an elementary school setting. Behavioral Disorders, 1-14, online first

U-TTEC Lab

TECHNOLOGY IN TRAINING, EDUCATION, & CONSULTATION

The lab focuses on applying cutting-edge technology to current evidence-based practices in school psychology, pediatric psychology, and applied behavior analysis including consultation, behavior assessment and intervention, pediatric feeding problems, and school mental health.

Multi-tiered Mental Health Supports in Schools

Utah SMH Collab

Utah School Mental Health Collaborative

The U-SMHC provides technical assistance and training to rural school districts to develop effective and sustainable school mental health systems that generate an integrated and collaborative process of delivering multi-tiered direct and indirect well-being services to their school communities.

WBTs

Well-Being Teams

The Well-Being Team (WBT) is a collaboration with Salt Lake City School District. Our team is comprised of licensed psychologists, Board Certified Behavior Analysts, clinical social workers, and graduate students in clinical mental health counseling, school psychology, and counseling psychology at the University of Utah

Integrated Care Supports in Schools

ATLAS

Adolescent Teaching & Learning Accommodations for Success

The ATLAS program is housed within the SLCSE-Bryant Middle School. It serves students who have been referred by their home school. Our students have diverse histories and unique journeys.

ASCEND

Behavioral & Mental Health Support for Salt Lake City School District

The ASCEND Program provides intensive behavioral and mental health supports to students in Salt Lake City School District. Our team is made up of Board Certified Behavior Analysts, licensed psychologists, clinical social workers, graduate clinicians in counseling and school psychology.

ABS+

Academic Behavior Support

ABS+ operates in several elementary and secondary settings in Canyons School District. We serve students receiving special education services within community schools. ABS classrooms provide specially designed instruction to students whose educational progress is primarily impacted by behavior.

CLIMBS

Classroom Layered Individualized Mental-Health & Behavior Supports

Granite School District CLIMBS is a comprehensive student support program within Granite School District. The program serves four classrooms (k-12), which provide comprehensive services to students experiencing significant behavioral and mental health needs.

CPHS

Career Path High School

CPH is an integrated care program, helping Career Path High bolster their MTSS framework and create a PBIS system of support. Incorporating tier 2 group/individual therapy and tier 3 SPED assessment, and behavioral FBA/BIP.

(Tele) Consultation to Support Behavior for Students Receiving Special Education Services

DSD

Davis School District

This project provides in-person multi-tiered behavior supports to public school students in local education authorities across Utah.

WCSD

Washington County School District

Services provided through this project focus on contemporary applications of applied behavior analysis in school through telehealth.

Interdisciplinary Pediatric Feeding Disorders Clinic

Interdisciplinary Feeding Clinic

We are a multidisciplinary team providing services through the Huntsman Mental Health Institute HOME program at the University of Utah. Our team consists of behavior specialists, registered dietitians, and speech-language pathologists. We assess and treat feeding difficulties of children, adolescents, and adults.

BRST

Behavior Response Support Team

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Granite SCHOOL DISTRICT

.....is online!

Follow us on social media for daily learning tips

- Behavior Principles
- Academics
- Schedule/ Routine
- Tackling Boredom
- Electronic Safety
- Social & Emotional Learning/ Wellness
- Positive Reinforcement
- English Spanish Portuguese and Chinese

Twitter:
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Facebook:
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Behavior Response Support Team

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YouTube:
Behavior Response Support Team BRST

We're here to help #UThrive

Well-Being Team

School Mental Health Program

Who We Are

The Well-Being Team (WBT) is a collaboration between the **University of Utah** and the **Salt Lake City School District**

Our team is comprised of **licensed psychologists**, **Board Certified Behavior Analysts**, clinical social workers, and **graduate students** in **clinical mental health counseling, school psychology,** and **counseling psychology** at the University of Utah

Who We Serve

The WBT provides supports across multiple tiers to **caregivers**, **educators**, and **students** to improve student mental health and wellbeing

Our Services

School-wide Supports

- Social-emotional learning
- Classwide psychoeducation
- Schoolwide social-emotional attitudes & values

Targeted Interventions

- Group therapy & individual check-ins to address areas such as:
  - Stress and anxiety
  - Coping with change
  - Academic engagement

Individualized Services

- Individual therapy and case management for acute needs, including:
  - Depression
  - Grief and/or trauma
  - Identity development

For More Information

Contact Dr. Aaron Fischer: aaron.fischer@utah.edu

2021-2022

Problem-Solving Teleconsultation with Teachers and Caregivers

Step 1 — Build a Relationship

- Establish trust and mutual respect
- Clarify roles, expectations, and responsibilities
- Use approachable language
- Ask about cultural diversity and comfort with technology

Step 2 — Identify the Problem

- Define the problem and desired outcomes in clear observable terminology
- Explore contextual factors influencing and maintaining the problem
- Set up a baseline data collection plan

Step 3 — Analyze the Problem

- Use various sources of data to further understand the problem
  - Behavior observations
  - Review of records
  - Antecedent-behavior-consequence
- Use screen sharing to review data
- Identify an evidence-based intervention

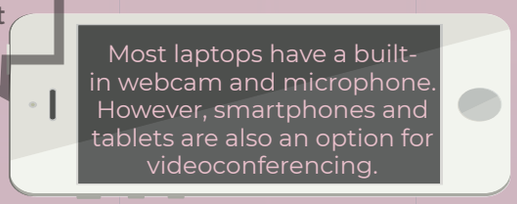
Step 4 — Implement the Intervention

- Develop a written intervention plan
- Use behavior skills training
  - Tell (review the written plan)
  - Show (model the intervention)
  - Do (rehearsal and performance feedback)
- Use videos of intervention models, bug-in-ear coaching, and uploaded recorded videos to enhance performance feedback and support

Step 5 — Evaluate Intervention Effectiveness

- Was the intervention implemented as planned?
  - Yes: Commend performance!
  - No: Support any barriers
- Did the problem get better?
  - Yes: Plan to maintain/generalize
  - No: If due to poor implementation, provide additional support
    If due to lack of effectiveness, go back to Step 3

Don't forget a HIPAA and FERPA Compliant Platform!



Most laptops have a built-in webcam and microphone. However, smartphones and tablets are also an option for videoconferencing.

Hardware Options

Computer or Tablet

Kubi Robot

Double Robot

- Fischer, A. J., Collins, T. A., Dart, E. H., & Radley, K. C. (2019). *Technology Applications in School Psychology: Consultation, Supervision, and Training*. New York: Routledge.
- Frank, J. L., & Kratochwill, T. R. (2014). School-based problem-solving consultation. In W.vP. Eurchul, & S. M. Sheridan (Eds.), *Handbook of research in school consultation* (pp.13–30). New York: Routledge.

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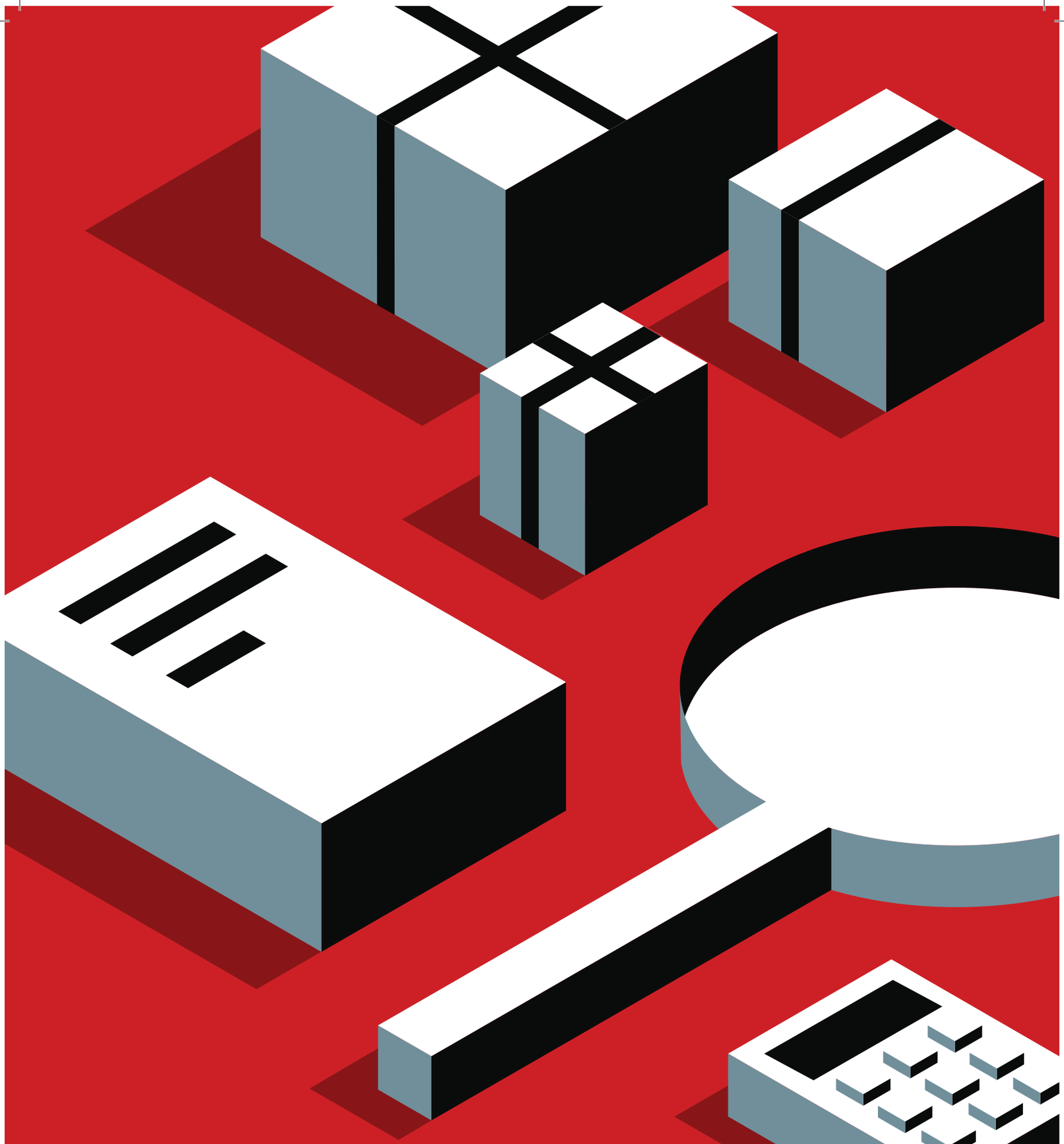
www.u-tteclab.com
Aaron J Fischer, PhD, BCBA-D aaron.fischer@utah.edu



education.utah.edu

College of Education
1721 Campus Center Drive, SAEC 3202
Salt Lake City, UT 84112

801-581-8221

@uofueducation

collegeofeducation@utah.edu