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The Impact of COVID-19 on Collaboration Between School Psychologists and Board-Certified Behavioral Analysts

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The Impact of COVID-19 on Collaboration Between School Psychologists and

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Abstract

The aim of this paper is to examine the impact of communication styles brought on by distanced learning and its effect on collaboration for school psychologists and Bord Certified Behavioral Analysts (BCBAs). Prior studies have addressed collaboration habits between these school-based professionals. The current study aims to analyze the impact that COVID-19 had on these practitioners' collaboration habits and to investigate their current communication and collaboration habits. A mixed methods locally developed anonymous survey was created and used for data collection. Participants were recruited through social-media groups and via word-of-mouth sharing. 20 school-based practitioners shared their perceptions and experiences with collaboration through the survey. The study found that while video chat communication became a frequent method of communication during distanced learning, practitioners prefer collaborating with one another in person. The practitioners saw a decrease in collaboration during distanced learning for varied reasons (i.e., change in student need, preferred method of collaboration was unavailable, and access to staff). Working in a post-COVID-19 environment, practitioners in the sample report rarely and sometimes using video chat communication in their day-to-day practice. These findings imply that practitioners form stronger collaborative relationships with others who demonstrate that they value collaborative relationships. Practitioners can demonstrate a willingness to work together by considering others' recommendations and using their colleagues' preferred methods of communication when coming together and helping students. Creating habits around video chat collaboration may strengthen collaborative relationships as findings show that the convivence of the tool may continue to foster collaborative relationships.

Keywords: collaboration, school psychologist, BCBA, video chat, COVID-19, communication

The Impact of COVID-19 on Collaboration Between School Psychologist and

Board-Certified Behavioral Analysts

Collaboration among school professionals is an integral component that leads to

positive student outcomes. When serving students, schools, and communities, school-

based professionals often work alongside one another in a collaborative team. Members

of a collaborative school-based team often come from varied training backgrounds and

have their own unique set of skills and knowledge. Specifically, school psychologists and

Board-Certified Behavior Analysts (BCBAs) are school-based professionals who are

situated uniquely, as they receive training in overlapping areas and can provide helpful

insights to one another when there are gaps in knowledge (Fischer et al., 2021). Over the

last three years, the world has been adjusting to novel rules and regulations regarding the

COVID-19 pandemic. As in-person gatherings were halted, schools needed to adapt their

practices to this new situation. Considering the importance of interprofessional

collaboration for supporting students with complex behavioral needs, little is known

about how collaboration between these school-based professionals was impacted due to

distance learning. The current study aims to address this gap.

The following literature review will examine the existing literature on the

collaborative practices of school psychologists and BCBAs and challenges that COVID-

19 introduced to collaborative relationships. The articles in this review are organized

thematically, and the focus of the review is to analyze literature surrounding school-based

collaboration, and how COVID-19 has shifted the way in which professionals engaging

in collaboration. The current study is examining the impact of COVID-19 on the

collaborative practices of school psychologists and BCBAs, satisfaction with collaboration, and perceptions of their roles.

Review of Literature

School-Based Interprofessional Collaboration

As defined by the World Health Organization (WHO), interprofessional collaboration is when "two or more professions learn about, from, and with each other to enable effective collaboration and improve health outcomes" (WHO, 2010, p. 7). In a school, there are many individuals with different levels of specified training who provide services to students (e.g., school psychologists, social workers, occupational therapists, speech-language pathologists, nurses, physical therapists, and school counselors; Strunk et al., 2019). These individuals with different training backgrounds are required to work together to identify potential solutions for the students, families, and communities that they serve (Dobbs-Oates et al., 2016). Specifically, different professionals often come together to discuss eligibility determination for students who may qualify for special education services. As required by law (IDEA, 2004), one general education teacher, one special education teacher, a school representative, and the parents(s)/guardians(s) of a student must make up the individualized education program (IEP) team. In addition to an IEP team, an eligibility team is also formed to determine if a student is eligible to receive special education services. An eligibility team may be separate from the IEP team and involve other team members including the school psychologist, behavior analyst, occupational therapist, speech-language pathologist, school administrator, general education teacher, and/or special education teacher. For both teams, their job is to work together to engineer a plan with the goal of increasing students' success (Dobbs-Oates et

al., 2016). Hence why collaboration is an essential aspect of school-based practitioners'
roles.

A teacher's handbook on collaborative teaming identified that successful
collaborative teams require two aspects: (1) sharing knowledge of each team members'
unique positions and roles and (2) willingness and openness to learning about other
professions and understanding each member's unique contribution to the problem-solving
process (King-Sears, 2015). Furthermore, school-based collaboration is not simply
working together; collaboration is understanding and agreeing to recognize the unique
position of each member on the team. This allows for a school-based team to come
together and pull from each member's specific experience and resources to enhance the
learning of their students. Finally, collaboration is more specific than teamwork, as each
member of the team is tasked with working under the same value belief for the present
need (King-Sears, 2015).

Benefits of Interprofessional Collaboration

One benefit to collaboration is that it increases team members' feelings of
commitment to the plan as well as their motivation when shared decision making is
involved, which is important as school-based professionals are often asked to work
collaboratively with one another (King-Sears, 2015). An additional benefit that was
brought up in research by Strunk et al. (2019) is that interprofessional collaboration
allows team members to learn about other perspectives to approaching and addressing
student needs. Further, engaging in interprofessional collaboration may lead to team
members having a more developed understanding and respect for the skills other
members bring to the team (Strunk et al., 2019).

Barriers to Interprofessional Collaboration

Placing people in a group without clearly defined roles and asking them to work together can create interpersonal and interprofessional challenges. Some barriers to collaboration include differences in training, communication, and previous experiences in collaboration. A barrier to communication may be use of jargon and terminology as it is specific to each professional's disciplines (LaFrance et al., 2019). This can interfere with a group's ability to work cohesively and most efficiently (Strunk et al., 2019).

To address differences in training, Dobb-Oates et al. (2016) suggests that school-based professionals understand other team members' training background and familiarize themselves with other professionals' jargon so that collaboration between the team can be effective. Increasing understanding between professionals also helps to create mutual respect between disciplines (Dobbs-Oates et al., 2016). Additionally, having knowledge on how others were trained can be important when coming together to collaborate.

As discussed by King-Sears (2015), collaboration expands on the idea of teamwork, as collaboration requires each team member to understand each other's specific roles and abilities. LaFrance et al. (2019) investigated similarities and differences among scopes of practice and training backgrounds of individuals working as behavior analysts, psychologists, speech-language pathologists, and occupational therapists. The purpose of their study aimed to identify areas of overlap or uniqueness in each professional's scope of training and practice, specifically when working with individuals who have a diagnosis of autism spectrum disorder (ASD). LaFrance et al. (2019) compared behavior analysts to each other profession (psychologists, speech-language pathologists, and occupational therapists) and found that each profession's scope-of-

training seemed to overlap, but their scopes of practice did not. Furthermore, their

research found that behavior analysts shared the most overlap with those in clinical

psychology. This finding strengthens the need for transparent communication between all

multidisciplinary team members in addition to each member of the team having a general

idea about each other's training backgrounds. Likewise, having knowledge of each

other's roles helps each member recognize where they may need to amplify use of their

own expertise to provide effective treatment (LaFrance et al., 2019).

Fischer et al. (2021) examined the overlap between school psychology and

applied behavior analysis (ABA) programs' training and course requirements, while

arguing for the possibility of an integrated graduate training program. The identified

areas of program overlap include assessment, intervention, and consultation. In the article

Fischer et al. (2021) states that school psychologist training programs should offer a

broad scope in training of behavioral analysis topics as school psychologists have a

unique position in the school in which they work, often working in interdisciplinary

teams and delivering services. The article further goes on to say that equipping school

psychologists with training in ABA may better allow them to support and appropriately

address behavior challenges they encounter in school. As these professionals have

overlap in their training, it remains import to support their understanding in each other's

roles, encourage them to engage in open and continuous communication, and collaborate

with each other in a way that expands upon on each practitioner expertise to best support

student's needs.

To address communication efforts between professionals, LaFrance et al. (2019)

argues that fostering team members' capacities for interpersonal relationship skills may

bolster communication between the team and enhance collaboration efforts between

practitioners. This may include learning how to actively listen to one another and reflect

their feelings in a way that makes the other professional feel valued and respected

(LaFrance et al., 2019).

A nonexperimental study conducted by Kelly and Tincani (2013) identified

aspects of collaboration between individuals working in fields related ABA and human

services fields in education (e.g., behavior analyst, special education teacher,

psychologist, occupational therapist, speech language therapist). They created a 23-item

survey addressing (1) areas of current collaboration, (2) variables that support and hinder

collaboration, and (3) their perspectives on collaborative behavior. The survey was

piloted by applied behavior analysis and consultation doctoral students (Kelly & Tincani,

2013) and adjusted based on their feedback. The survey was then sent to state

associations of the Association for Behavior Analysis International (ABAI) and special

interest groups. Three hundred and two participants from 20 state chapters of the ABAI

and 26 affiliated chapters and special interest groups completed the survey. Over half of

the participants in this study were BCBAs, with 38% working in the public schools.

Survey questions were asked using a 5-point Likert Scale and analyzed inferentially.

Regarding these professionals' previous training experiences in collaboration,

most participants reported that they had never taken a class or received a certification that

covered collaboration (Kelly & Tincani, 2013) even though collaboration is an important

aspect of school-based teams (Dobbs-Oates et al., 2016). Their study found that 62% of

their participants indicated that they collaborate daily with other professionals (Kelly &

Tincani, 2013); face-to-face meetings and email were their primary modes of

communicating with others. An interesting finding from this study is that participants more often rated perceived challenges for consultation as higher for the person they are working with, rather than for themselves. In other words, participants perceived that other school-based professionals were less willing to collaborate than they were due to inhibitors like lack of time or differences in training background.

A similar study by Hornsby et al. (2021) analyzed the frequency and format of collaboration between school psychologists and BCBAs, as well as these professionals' perceptions on what makes school-based collaboration successful or challenging. Their study surveyed 285 school-based BCBAs and 118 school-based school psychologists and asked them questions regarding collaboration. Their study found that both school psychologists and BCBAs agreed that lack of time and school policies and procedures inhibit collaboration. Additionally, the BCBA participants felt that differing philosophies were another factor that does not support collaboration between these two professionals. Furthermore, their findings indicate that supporting factors for collaboration between these school-based professionals include, having enough time for collaboration, having shared philosophies, working in a school division that values collaboration, working with colleagues who value collaboration, and having adequate training in collaboration. The frequency of collaboration was different for each school-based professional. For example, BCBAs reported that they collaborate with a school psychologist at least once every other week, whereas school psychologists reported they only collaborate with a BCBA once a quarter. Finally, Hornsby et al. (2021) found that collaboration between these two professionals happened most often in person, with email communication as the second common mode for school psychologists engaging in collaborating with BCBAs, and

phone calls/other as the second most common mode for BCBAs engaging in

collaboration with a school psychologist. While their survey was disseminated during the

COVID-19 pandemic, their research did not ask specific questions related to

collaboration during COVID-19.

Impact of COVID-19 on School-Based Service Delivery

The impact of COVID-19 has changed the way that school-based services

operate. The need for distanced service delivery has shifted how people meet, and how

students receive services. As previously noted, communication can be a challenge when

people are asked to work collaboratively. The shift to distance learning meant that

meeting in person, whether while passing each other in the hallways (i.e., in passing), in

each other's office, or before or after child study or eligibility meetings, was no longer an

option during the height of the pandemic. Therefore, alternatives to communication were

necessary. The term "in-passing" is used in this document and refers to professionals

passing each other in the hallways, i.e., hallway consultation, or other descriptions of in-

person in-formal communication between school-based practitioners.

Brown and Finn (2021) sought to address how the changes due to COVID-19

impacted collaboration approaches. They identified three relevant exploratory case

studies of collaborative practices during COVID-19 and highlighted the strengths and

limitations of each. The researchers noted that within all three cases, communication was

a main factor in the success of collaboration. In line with ideas that LaFrance et al. (2019)

presented, professionals who used interpersonal skills, such as active listening and

attending to what others were saying, increased the team's collaborative success (Brown

& Finn, 2021). Individuals felt like their input to the team was meaningful and

experienced strengthened feelings of togetherness. Open communication between

professionals was the best predictor of group success for two of the cases analyzed.

Brown and Finn (2021) also found that the use of technology to facilitate online

collaboration successfully opened more collaborative opportunities between

professionals. The researchers conclude that while there are limitations to online

collaboration (for example, continuity) intentionally increasing the frequency of

communication and utilizing technological supports led to an improvement in

collaboration between professionals and in turn, improved student outcomes.

To highlight this change in service delivery, many school-based behavior analysts

shifted to a tele-practice service model (Frederick et al., 2020). Frederick et al. (2020)

developed a distance support practice model allowing BCBAs to support students who

receive IEPs during school closures. In their practice model, an increase in

communication was accomplished by intentional checking in and sending brief updates

on student progress between team members. This study attributes the success of their

distance support practice model to the increase in communication between team members

providing support to their clients, indicating that the increase in communication not only

helped them stay connected, but also contributed to students' positive response to the

level of service delivery. Additionally, this increase in the frequency of collaboration

between professionals led to improved student outcomes on their academic work and in

natural conditions, as the practitioners were able to talk through challenges with each

other and find alternative ways to help the learners experience meaningful telehealth

sessions (Frederick et al., 2020).

Schaffer et al. (2021) surveyed 918 school psychologists working in the United States about their perceptions of the impact of COVID-19 on their roles and responsibilities in early 2020. Specifically, they examined how services provided by school psychologists in the public schools were changed, the difficulties surrounding these changes, and how the profession can prepare for large-scale crises in the future. The researchers developed a 53-item survey that addressed "school psychologists' perceptions before and during the COVID -19 pandemic in the areas of (a) roles and responsibilities; (b) service delivery; (c) perceived concerns and barriers in providing services; and (d) concerns and recommendations on plans for school reentry" (Schaffer et al., 2021, p. 1250). The researchers analyzed participants' perceptions of their role before and during distance learning. A thematic analysis was also used to explore short answer responses. Their results indicated that prior to COVID-19, school psychologists listed special education assessments for eligibility as their primary role. As the impact of COVID-19 shifted their work, school psychologists rated consultation and collaboration as their primary role, as access to students for eligibility assessments was limited due to school closures and distance learning (Schaffer et al., 2021). This shift in type of service delivery emphasizes the importance of interprofessional collaboration and the foundational understanding of each other's roles on the team. Increasing the frequency of communication between team members and having knowledge of team members roles could help strengthen the impact of a multidisciplinary team's service delivery for students during distance learning, as well as shifting back to in-person learning.

Problem Statement

As there is limited information on how COVID-19 has changed collaboration between school psychologists and BCBAs working in the schools, the aim of this study is to understand how COVID-19 has shifted the way that school psychologists and BCBAs collaborate in the schools. Research highlights that increase in communication and collaboration have been a main theme in supporting service delivery throughout the pandemic (Frederick et al., 2020; Schaffer et al., 2021). It was also noted that collaboration between these professionals prior to the pandemic occurred most often in person for both groups (Hornsby et al., 2021). The question that remains is how did the shift to distance learning impact collaboration between school psychologists and BCBAs?

Purpose

The purpose of this nonexperimental mixed-methods study was to examine how the COVID-19 pandemic has impacted interprofessional collaboration between school psychologists and BCBAs. More specifically, this study investigated how communication and collaborative practices between these school-based professionals have changed because of distance learning.

Research Questions

1. How did communication between school psychologists and BCBAs change during distance learning?

2. How did the use of video communication change practitioners' satisfaction in collaboration with each other?

3. Have school psychologists and BCBAs collaborative behaviors and practices changed as a result of the COVID-19 pandemic?

4. If collaborative behaviors and practices changed as a result of the COVID-19

   pandemic, how did it change?

Method

A mixed-methods, locally developed anonymous survey was used to collect

responses from the participants. The use of a survey provides a flexible and accessible

way to gather data from a variety of participants spanning across the United States (Hott

et al., 2021). A mixed-methods survey allows for the integration of both quantitative and

qualitative data, allowing the findings to be both generalizable to a sample of the

population as well as having the capacity to "translate knowledge across a potentially

diverse range of communities" (Meixner & Spitzner, 2021, p. 7). When analyzing

qualitative data, a thematic analysis will be used to highlight themes in the participants'

lived experiences and perspectives (Braun & Clarke, 2006). Additionally, a mixed-

methods study allows for the blending of participants' perspectives along with their

quantitative responses (Hott et al., 2021). Therefore, utilizing a mixed-methods study

allows for deeper understanding of the research questions and better reflects the needs

and experiences of the research participants. A strength of a mixed-methods design is that

through thematic analysis, common themes in the responses can be highlighted to explain

a phenomenon (Braun & Clarke, 2006).

Participants

Participants are school-based practitioners, working as BCBAs or school

psychologists. The participants in this sample have been in their current roles since

March 2019, and work in schools located in the United States. This time frame is

included to capture practitioners' perceptions of the change brought forth by COVID-19

and the impact of distanced learning. Out of the 45 participants in the sample, eleven

BCBAs and nine school psychologists fully completed the survey and their responses

have been collected and analyzed in the results section. There were 25 participants who

did not fully complete the survey, either by not qualifying through the rule-out questions,

or not completing all the questions. Below, Table 1 describes how long the participants in

the sample have been working in their current role. Of the sample of BCBAs who

complete the survey, most report having been in their current role for 0-5 years ($n=5$),

while the sample of school psychologists most frequently report being in their current

role for 10-15 years ($n=3$).

Table 1

Number of participants per group and how long they have worked in their current role

	0-5 years	5-10 years	10-15 years	15-20 years	20-25 years	25+ years	Total
BCBA ($n=11$)	5 (45%)	2 (18%)	2 (18%)	1 (9%)	0 (0%)	1 (9%)	11 (100%)
SP ($n=9$)	2 (22%)	0 (0%)	3 (33%)	2 (22%)	2 (22%)	1 (11%)	9 (100%)

To recruit participants for the study, a combination of convenience and snowball

sampling were used to disseminate the survey. Specifically, social media platforms (e.g.,

Facebook groups included in Appendix C), and word of mouth sharing were used to

reach potential participants. A list of the social media pages where the survey was posted

can be found in Appendix C. To further promote the survey, an infographic was created

and shared along with the information regarding the study. The graphic attached in the

recruitment posts and emails can be found in Appendix D. Additionally, practitioners

were encouraged to share the link and infographic with additional groups of people who

met the inclusion criteria for the study. Participant recruitment occurred from October of

2022 to May of 2023.

Measure

Survey items were locally developed by the lead researcher in addition to using

questions that address school-based collaboration between school psychologists and

BCBAs previously developed by Hornsby et al. (2021). The survey used in this study

consists of 17 items. Six demographic questions, and eleven questions related to school-

based practitioner's experience with collaboration. Survey questions required participants

to select their answer from a pre-determined list of items that best describe their

experiences, rank-order their communication preferences, answer questions on a Likert

scale, and respond to open ended questions. The complete questionnaire can be found in

Appendix B.

Procedure

Before dissemination of the survey, Institutional Review Board (IRB) approval

was obtained at the researcher's university. Participants secured access to the survey

through a social media flyer (Appendix D) or through a link posted to social media

platforms or by email. Participants were asked to complete a 17-item secure web-based

survey using Qualtrics Survey Software lasting approximately ten to fifteen minutes.

Prior to beginning the study, participants read the informed consent (Appendix A) and

indicated if they agreed to participate or disagreed to participate in the study.

Additionally, participants had the option to withdraw consent at any time during the

completion of the survey. To be included in the study, participants had to indicate that

they had been working as a school-based school psychologist or BCBA practitioner since

March of 2019.

Data Analysis

Data were analyzed through IBM SPSS. A convergent design was used where

quantitative and qualitative data are analyzed at the same time. To examine all research

questions, a chi square test of significance was used to measure the frequency of

practitioners' perspectives on the impact of COVID-19 on collaboration. A chi square

test allows for the analysis of data that has been ordered in addition to categorical data

(Janes, 2001). Chi square tests also allow for the analysis of relational data between

populations, in this case, between school-based school psychologists and BCBAs. Using

frequency counts, the investigator will be able to analyze similarities and differences

between the groups of participants and their perceptions of their collaboration habits.

To further investigate research question two, a thematic analysis was conducted to

identify current practitioners' satisfaction in using video communication when

collaborating. First, initial codes for patterns in the data were recorded after the

researcher became familiar with the data. The data codes were determined based on

simple elements that address the theme. A systematic process of highlighting similar

patterns in the data, and recording written thoughts about the data (i.e., how it relates, and

why it is unique) were obtained in this phase (Braun & Clarke, 2006). Secondly, after the

codes had been collected, they were organized to determine overarching themes and

relationships. These first two phases occurred with the input of the research chair.

Thirdly, the primary investigator reviewed the themes, and the level of agreement was

used to determine which themes the data would be coded to. Once the themes were

identified and refined, each theme received a name. The data analysis was completed by describing the themes within the participants' personal responses. Analyzing the data in this manner allows the primary investigator to provide meaning and categorize participants' thoughts (Braun & Clarke, 2006).

Rigor and Trustworthiness

Enhancing rigor in this mixed-methods survey was achieved through varied mechanisms. First, survey questions were developed based on a pre-existing survey by Hornsby et al. (2021), and additional items were included through feedback and discussion with the thesis committee members. Furthermore, the qualitative data were triangulated to ensure that data sources have been cross-checked and interpreted in a way that fully investigates the participants' perspectives (Krefting, 1991). Using multiple perspectives in the data analysis process limits bias in data-interpretation, increases confirmability, and allows for a more complete understanding of participants' views as it relates to the phenomenon of being a collaborative school-based practitioner during COVID-19.

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Results

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Research Question One

To analyze the first research question, "How did communication between school psychologists and BCBAs change during distance learning?", participants were presented with several questions aimed at understanding their communication habits. Participants were asked to select their preferred method of communication with other school professionals that support their building(s) from a list of provided options. Data was analyzed by comparing frequencies to evaluate the relationship between practitioners'

preferred method of communication prior to COVID-19. Their responses are in Table 2.

Of the BCBAs sampled, 45% (n=5) and 44% of school psychologists (n=4) indicated a

preference for collaborating *in person through a scheduled meeting*. Additionally, 27% of

the BCBA sample also indicated a preference for collaborating *in person in passing*

(n=3). It appears that prior to COVID-19 and distanced learning, both groups of

practitioners prefer in-person communication when collaborating.

Table 2

Practitioners' preferred method of communication with the other professionals prior to COVID-19

Method	BCBA (n=11)	SP (n=9)
Phone call	1 (9%)	-
Texting	-	-
Email	1 (9%)	1 (11%)
Video chat software	-	-
Before or after meetings	1 (9%)	-
In person in passing	3 (27%)	1 (11%)
In person through a scheduled meeting	5 (45%)	4 (44%)
Other	-	1 (11%)
I don't communicate	-	2 (22%)

To further investigate practitioners' current preferred format of communication,

participants were given a list of communication methods and asked to rank their

preference from "1" indicating their most preferred method to "8" indicated their least

preferred method of communication when collaborating with other school professionals.

Data was analyzed by comparing frequencies to evaluate the relationship between

practitioners' current preferred format of communication and their preferred format pre-

COVID when collaborating with other school professionals (Table 3). The BCBA

participants ranked collaborating *in person through a scheduled meeting* (*n*=7) at a rank

of 1, signifying this method as their current most preferred format of communication.

Before or after meetings (*n*=4) received a ranking of 2 among BCBAs as their next

preferred format of communication when collaborating with the school psychologists

who support their buildings. Similarly, the school psychologists in the sample ranked

collaborating *in person through a scheduled meeting* (*n*=3) and collaborating through

email (*n*=3) at a rank of 1 (most preferred format of communication). Collaborating *in*

person in passing (*n*=4) received a rank of 2 for the school psychologist sample,

indicating that this is their next preferred format of communication with the BCBAs who

support their buildings. Interestingly, each group's second preference (a rank of 2)

remains related to communicating in person with one another.

Lastly, data were analyzed to determine the relationship between how often

participants currently use the listed forms of communication to collaborate. Six BCBAs

(54%) and six school psychologists (67%) rated using email *often* in their practice. Email

was the highest rated form of communication in the BCBA sample (*n*=6). School

psychologists had a strong preference for collaborating *in person in passing* with eight

participants (89%) selecting they *often* use this form of communication. Conversely on a

question addressing the change in the format of communication due to distance learning,

BCBAs indicated that they currently *rarely* use video chat software as a current form of

communication to collaborate (*n*=5). Among school psychologists, four participants

(44%) indicated that they currently *rarely* use video chat software, and five participants

(56%) indicated that they *sometimes* use video chat communication. (See Table 4.)

Table 3

Frequency of ranking assignment for practitioners current preferred format of communication when collaborating with other school professionals.

	1		2		3		4		5		6		7		8
Format	BCBA	SP	BCBA	SP	BCBA	SP	BCBA	SP	BCBA	SP	BCBA	SP	BCBA	SP	BCBA
Phone calls	-	-	1 (9%)	1 (11%)	5 (45%)	3 (33%)	2 (18%)	2 (22%)	1 (9%)	2 (22%)	1 (9%)		1 (9%)	1 (11%)	-
Texting	-	-	-	2 (22%)	1 (9%)	-	5 (45%)	2 (22%)	1 (9%)	1 (11%)	1 (9%)	1 (11%)	3 (27%)	3 (33%)	-
Emails	-	3 (33%)	1 (9%)	1 (11%)	1 (22%)	2 (9%)	1 (22%)	2	6 (54%)	1 (11%)	2 (18%)	-	-	-	-
Video chat	1 (9%)	-	2 (18%)	-	2 (18%)	1 (12%)	1 (9%)	1 (12%)	1 (9%)	2 (25%)	1 (9%)	3 (37%)	2 (18%)	1 (12%)	1 (9%)
Before or after meetings	1 (9%)	1 (12%)	4 (36%)	-	-	2 (25%)	1 (9%)	1 (12%)	-	1 (12%)	4 (36%)	3 (37%)	1 (9%)	-	-
In person in passing	2 (18%)	2 (25%)	2 (18%)	4 (50%)	-	-	1 (9%)	-	-	-	1 (9%)	1 (12%)	4 (36%)	1 (12%)	1 (9%)
In person through a scheduled meeting	7 (63%)	3 (37%)	1 (9%)	1 (12%)	1 (9%)	1 (12%)	-	-	1 (9%)	1 (12%)	1 (9%)	-	-	2 (25%)	-

Note. A rank of 1 indicated the most preferred format of communication, and a rank of 8 indicates the least preferred format of communication.

Table 4

Practitioners' current frequency of each form of communication when collaborating

	BCBA (*n*=11)					SP (*n*=9)				
	Never	Rarely	Some times	Often	Always	Never	Rarely	Some times	Often	Always
Phone call	-	4 (36%)	1 (9%)	5 (45%)	1 (9%)	-	-	4 (44%)	4 (44%)	1 (11%)
Texting	-	2 (18%)	4 (36%)	5 (45%)	-	-	4 (44%)	-	5 (55%)	-
Email	-		2 (18%)	6 (54%)	3 (27%)	-	-	-	6 (66%)	3 (33%)
Video Chat	-	5 (45%)	2 (18%)	2 (18%)	2 (18%)	-	4 (44%)	5 (55%)	-	-
Before or after meetings	-	1 (9%)	4 (36%)	5 (45%)	1 (9%)	-	1 (11%)	4 (44%)	4 (44%)	-
In person in passing	-	2 (18%)	4 (36%)	3 (27%)	2 (18%)	-	1 (11%)	-	8 (88%)	-
In person through a scheduled meeting	-	1 (9%)	2 (18%)	4 (36%)	3 (27%)	-	1 (11%)	3 (33%)	5 (55%)	-
Other	2 (100%)	-	-	-	-	3 (60%)	1 (20%)	-	1 (20%)	-

Table 5 provides information on the relationship between BCBAs and school psychologists' changes in collaborative practices brought on by the COVID-19 pandemic and distance learning. It appears from the groups' responses that video chat collaboration has become a *more frequent* method of collaboration since distance learning (BCBAs, *n*=7; school psychologists, *n*=8). Both groups of school-based practitioners report *no change* in their frequency of using other methods of communication to collaborate currently. These results suggest that practitioners' communication habits did not change after coming back from distanced learning. Video chat communication is the exception, and these results may be related to the fact that it is a newer tool and grew so quickly during an unpredictable time. Now post-COVID-19 practitioners may have a new familiarity with video chat as a tool, which is something they may not have used pre-COVID-19. This may be why practitioners in the sample report using video chat more frequently than any other method of communication after distanced learning.

Table 5

Practitioners' change in frequency of communication method after distance learning

	BCBA (*n*=11)			SP (*n*=9)		
	More Frequent	Less Frequent	No Change	More Frequent	Less Frequent	No Change
Phone call	2 (18%)	1 (9%)	8 (72%)	2 (22%)	1 (11%)	6 (66%)
Texting	5 (45%)	-	6 (54%)	1 (11%)	-	8 (88%)
Email	3 (27%)	-	8 (72%)	-	-	9 (100%)
Video Chat	7 (63%)	2 (18%)	2 (18%)	8 (88%)	1 (11%)	-
Before or after meetings	1 (9%)	3 (27%)	7 (63%)	-	1 (11%)	8 (88%)
In person in	1 (9%)	2 (18%)	8 (72%)	-	-	9 (100%)

passing						
In person through a scheduled meeting	1 (9%)	3 (27%)	7 (63%)	-	1 (11%)	8 (88%)
Other	-	-	4 (100%)	2 (33%)	-	4 (66%)

Research Question Two

Participants were asked multiple questions aimed at understanding the change in

their collaborative behaviors and practices due to the COVID-19 pandemic. Data was

analyzed by comparing frequencies to evaluate practitioners' changes in collaborative

practices. When asked about their collaborative habits during COVID-19, 36% of

BCBAs indicated that they collaborated with others *one to two days a week* (n=4) (Table

6). When the participants were later asked the same question related to their collaborative

practices prior to COVID-19 and distance learning, 54% of the BCBA sample indicated

that they collaborated with others *one to two days a week* (n=6) (Table 7). There was an

18% decrease in BCBAs frequency of communication with others during distance

learning.

When analyzing collaborative habits during COVID-19, 67% (n=6) of school

psychologists in the sample indicated that they *never* collaborated with other school-

based professionals (Table 6). Prior to COVID-19, only 33% (n=3) of the school

psychologist sample endorsed *never* engaging collaborative practices (Table 7).

Additionally, 22% of the school psychologists reported communicating *once a quarter*

with others during COVID-19 (n=2). It appears that a large percent of the school

psychologist sample did not communicate with other school-based professionals during

COVID-19 and distanced learning.

Table 6

Practitioners' frequency of communication with each other during COVID-19

Frequency	BCBA (*n*=11)	SP (*n*=9)
Never	-	6 (67%)
1-2 days a week	4 (36%)	1 (11%)
3-4 days a week	-	-
5 days a week	1 (9%)	-
Every other week	2 (18%)	-
Once a month	2 (18%)	-
Once a quarter	2 (18%)	2 (22%)

Prior to COVID-19 and distance learning, the frequency of collaboration varied

between the groups. Of the BCBA sample, 54% report collaborating with the school

psychologist who supports their buildings *one to two days a week* (*n*=6), while 33% of

the school psychologists report collaborating with the BCBA *once a month* (*n*=3) or

never (*n*=3). Based on these results, it appears that each group was less likely to

collaborate with the other during distance learning and COVID-19 than prior to distance

learning and COVID-19.

Data was analyzed by comparing frequencies to evaluate the factors that hindered

BCBAs' and school psychologists' ability to collaborate during distance learning. Of the

BCBAs, 36% selected *other* but did not elaborate (*n*=4), and 27%

Table 7

Practitioners' frequency of communication with each other prior to COVID-19

Frequency	BCBA (*n=11*)	SP (*n=9*)
Never	-	3 (33%)
1-2 days a week	6 (54%)	-
3-4 days a week	2 (18%)	-
5 days a week	1 (9%)	1 (11%)
Every other week	-	1 (11%)
Once a month	-	3 (33%)
Once a quarter	2 (18%)	1 (11%)

indicated that *nothing hindered [their] ability to collaborate during distance learning* (*n=3*). These response patterns were similarly observed in the school psychologist sample, with 50% indicating *other* factors (*n=5*) and 50% indicating *nothing hindered [their] ability to collaborate during distance learning* (*n=5*).

Additionally, a thematic analysis was conducted to analyze the participants' perceptions of the factors that impacted their ability to collaborate during distance learning. Four out of the five responses from the school psychologist sample were related to the accessibility of BCBAs during distance learning. One respondent said, "we have very few BCBAs where I work, and they only rarely support my buildings." Another school psychologist shared that collaboration was hindered because "behavior was less of a concern for school staff. Attendance was a bigger concern." Other themes that were

Table 8

Practitioners' frequency of endorsing factors that hindered collaboration during distance

learning

Factors	BCBA (*n*=11)	SP (*n*=9)
Not enough time	2 (18%)	-
A disconnect between preferred methods of communication	2 (18%)	-
Challenges with access to internet	-	-
Feeling that collaboration was not the best use of time	-	-
Not having shared values with colleagues	-	-
Nothing hindered my ability to collaborate during distance learning	3 (27%)	5 (50%)
Other	4 (36%)	5 (50%)

analyzed in the responses included challenges with collaboration related to not having

students in the building, less behavioral concerns resulting in less behavioral

consultation, and not having shared cases.

  Lastly, participants were asked to select all that apply from a list of factors that

supported their ability to collaborate during distance learning. The frequency of the

practitioners' responses is included in Table 9. In the BCBA sample, 36% selected that

colleagues who value collaboration (*n*=9), followed by *having enough time to*

collaborate (*n*=6) were factors that supported their ability to collaborate during distance

learning. Similarly, 56% of the school psychologists sample indicated that having

colleagues who value collaboration supported their ability to collaborate (*n=5*) during

distance learning.

Table 9

Practitioners' frequency of endorsing factors that support collaboration during distance

learning

Factors	BCBA (*n=11*)	SP (*n=9*)
Having enough time to collaborate	6 (24%)	1 (7%)
A shared preferred method of communication	4 (16%)	1 (7%)
Shared philosophies	5 (20%)	2 (15%)
Colleges who value collaboration	9 (36%)	5 (38%)
Nothing supported my ability to collaborate during distance learning	-	2 (15%)
Other	1 (4%)	2 (15%)

A thematic analysis was also collected in addressing practitioners' perceptions on

factors that supported their collaboration during distance learning. A school psychologist

participant commented saying that sharing a preference in video conferencing with the

BCBA who supports their building was a factor that supported their collaboration during

COVID-19. Another school psychologist participated shared that meeting virtually when

they may be needed in two different places supported their collaboration efforts. It

appears that working with practitioners who value each other's preferences or needs is a

supporting factor in cultivating a successful collaborative relationship. Additionally,

these responses support the notion that video communication can be a coinvent tool for

collaboration, which is a theme further discussed in the findings of research question three.

Research Question Three

Two questions were asked to gauge practitioners' perceptions on their use of video communication and whether it changed their satisfaction in collaboration with one another. Both groups were asked if they saw themselves continuing to use video chat communication to collaborate, and two themes emerged from their responses. The first theme that emerged was related to practitioners having other preferred methods of communication. Out of the twelve responses related to this question, five practitioners indicated that increased access and use of video chat communication did not impact how they communicated with their colleague. Practitioners in the sample appear to have a continued preference for in-person communication when collaborating with each other. One practitioner responded to the question saying, "we have ample in-person opportunities to collaborate. Phone calls and text messages are also sufficient at communication. Video chat software does not offer any type of advantage to collaborating, as we are able to do so via other means."

The second theme that emerged in the participants' responses is that video chat made collaboration more convenient for them. Five responses relayed that video communication was convenient, and they may continue to use it as they have discovered appealing benefits to communicating over video. One respondent noted that the use of video communication has supported their collaboration saying, "video chat software has promoted collaboration since the pandemic due to the ease of use and general acceptance of this method of communicating."

In relation to video chat being a convenient method of communication, three responses from the sample indicated that when practitioners are responsible for multiple buildings, using video communication can be a more efficient use of their time. This method of communication allows for a decrease in their travel time between sites since their collaboration can occur face-to-face in separate locations. One participant shared their experience with video chat software saying, "I only use zoom because I work in multiple buildings and sometimes it's the best option, however I highly prefer speaking in person."

The findings from the qualitative data imply that while video chat provides convenience for school-based practitioners, even beyond COVID-19, there is a preference for other modes of communication, with a high preference for in-person communication. Practitioners who serve multiple buildings find video chat communication as a helpful too because it allows them the convenience of working with others when located in different buildings. Finally, even though video communication made collaboration possible during COVID-19 and distance learning, it appears that video collaboration is not the preferred method of communication for some school-based practitioners, and for others they find the convenience of the tool helpful.

Participants were also asked questions to understand their satisfaction with and likelihood of continuing to use video chat as a method of collaboration. Data was analyzed by comparing frequencies to evaluate the relationship between practitioners' satisfaction with using video chat software when collaborating. Their responses are shown in Table 10. The sample of BCBAs were almost evenly split regarding their level of satisfaction with the use of video communication to support collaboration. Further, the

BCBA sample indicated that they were 27% *somewhat dissatisfied* (*n=3*), 27% *neither satisfied nor dissatisfied* (*n=3*), and 27% were *very satisfied* (*n=3*) in the use of video chat communication to collaborate. However, 56% of the school psychologist sample indicated that they were *neither satisfied nor dissatisfied* (*n=5*) in the use of video communication to collaborate with the BCBA that supports their building. This was followed by 22% of responses in the *very satisfied* level of satisfaction in using video chat to collaborate. There does not appear to be a large proportion of practitioners with strong feelings, either positively or negatively regarding their satisfaction with using video chat software to collaborate.

Table 10

Practitioners' level of satisfaction using video chat software to collaborate

Levels	BCBA (*n=11*)	SP (*n=9*)
Somewhat dissatisfied	3 (27%)	1 (11%)
Neither satisfied nor dissatisfied	3 (27%)	5 (56%)
Somewhat satisfied	2 (18%)	1 (11%)
Very satisfied	3 (27%)	2 (22%)

Data was analyzed by comparing frequencies to evaluate the relationship between practitioners' likeliness of continuing to use video chat software when collaborating. Their responses are shown in Table 11. Of the BCBAs sampled 36% reported *not likely* (*n=4*) when asked if they would continue to use video chat software to collaborate. Conversely, 56% of the school psychologists reported *somewhat likely* (*n=5*) to continue to use video chat software to collaborate. This data supports results from the previous qualitative analysis that while video communication supported collaboration during

distance learning, school-based professionals have other preferred methods of

collaborating with others.

Table 11

Practitioners' likeliness of continuing to use video chat software to collaborate.

Levels	BCBA (n=11)	SP (n=9)
Not likely	4 (36%)	1 (11%)
Somewhat likely	3 (27%)	5 (56%)
Very Likely	3 (27%)	1 (11%)
Other	1 (9%)	2 (22%)

Research Question Four

To evaluate research question four, data and results were used from research

question two to investigate how collaborative practices have changed for school-based

BCBAs and school psychologists as result of COVID-19. When asked how often they

collaborated with the other professional that supports their building, 54% of BCBAs

responded that prior to COVID-19, they collaborated with the school psychologist *one to*

two days a week (n=6; Table 7), and during COVID-19, BCBA practitioners indicated a

preference for less frequent collaborative instances with 18% responding in each

frequency level (*every other week (n=2), once a month (n=2)*, and *once a quarter* (n=2);

Table 6). It is possible that the decrease in frequency of collaboration during distance

learning is due to the changes in the type of support that these school professionals

provided during COVID-19 (i.e., focusing on student attendance rather than supporting

their behavior).

The school psychologists sampled reported that prior to COVID-19, 33% of them reported collaborating with the BCBA who supports their building(s) *once a month* (*n=3*), and 33% reported to *never* (*n=3*) collaborating with the BCBA who supports their building(s) prior to COVID-19. However, during COVID-19, 67% of school psychologists responded to *never* (*n=6*) collaborating with the BCBA, followed by 22% of the school psychologist sample reporting collaborating *once a quarter* (*n=2*). These results may be similarly related to the impact that COVID-19 had on the type of service delivery needed during distance learning (Table 8).

When analyzing the type of communication method these school-based practitioners currently use, BCBAs and school psychologists appear to *often* rely on phone calls (BCBA *n=5*, school psychologist *n=4*), texting (BCBA *n=5*, school psychologist *n=5*), and email (BCBA *n=6*, school psychologist *n=6*) (Table 4). While the above formats of communication are *often* used in current practice, when given the choice, participants reported that collaborating in-person is there most preferred method of communication. Further, school psychologists had the highest response rate for currently meeting in-person *often* when collaborating at 88% (*n=8*) while 45% (*n=5*) of the BCBA sample rated *often* collaborating in-person before or after meetings. Regarding practitioners' current use of video chat communication, 45% (*n=5*) of BCBAs reported *rarely*, and 55% (*n=5*) of school psychologists indicated they *sometimes* use this method. While video chat was useful during distance learning, these school-based professionals currently use other methods of communication over video chat when collaborating.

Discussion

The results of the study identified similarities and differences between school-based BCBAs and school psychologists' collaborative behaviors and communication prior to and during distance learning. Results indicate a decrease in collaboration among school psychologists and BCBAs during distance learning. This may have been due to factors such as having fewer behavioral concerns as students were not in the buildings, safety challenges around meeting in-person, and difficulties with access to BCBAs.

Based on the results, the impact of COVID-19 and changes brought forth by distance learning did not affect practitioners' views on factors that support collaboration. Related to the findings from Hornsby et al. (2022), both groups endorsed that having colleagues who value collaboration is the most valued factor when fostering a supportive collaboration relationship. Additionally, BCBAs indicated that having enough time to collaborate, having share philosophies, and working with colleagues who value collaboration were additional positive factors that supported their ability to collaborate with the school psychologist who supports their building(s). These findings are mirrored in the Hornsby et al. (2022) study on collaboration trends between these two school-based professionals.

As for factors that hindered practitioners' collaborative efforts, many responses indicated that a difference in roles between the practitioners and the changes in the type of service need brought on by distance learning made collaboration during distance learning difficult. A few respondents noted that differences in their roles made it challenging for them to collaborate during distance learning, with BCBAs typically supporting behavioral concerns and school psychologists supporting the special education

process. Additionally, with an absence of students in the buildings, some behavior

concerns and consultation opportunities decreased. This, along with not having shared

cases, made reasons for collaboration difficult during distance learning. With these shifts

brought on by distance learning, there may have been less opportunities for collaboration

between the two practitioners.

Additionally, as one school psychologist participant mentioned, behavior was less

of a concern in their district when the students were out of the building. They saw a shift

in their school's need from behavioral concerns to attendance concerns, which then

resulted in a change in their role. This information supports Schaffer et al.'s (2021)

findings related to changes in school psychologists' perceptions of their role,

emphasizing a shift from assessment to consultation. It is unclear as to what this

participant's experience was in supporting students' attendance, but they noticed a shift

in their professional expectations brought forth by distance learning. Notably, access to

internet during distance learning was not a challenge to any participant in the sample.

As COVID-19 and distance learning brought forth the need to make new changes

and adjustments, it appears that collaborative practices were also impacted by this shift.

Over half of the school psychologist sample reported to *never* have collaborated with the

BCBA who supports their building(s) during COVID-19 and distance learning, while

prior to COVID-19 and distance learning, school psychologists responded equally to

collaborating with the BCBA *once a month* and *never*. Additionally, the sample of

BCBAs also reported experiencing a decrease in the frequency of collaboration with the

school psychologist from prior to distance learning to during distance learning.

A related theme in the school psychologists' responses highlights the gap in practitioners' access to school-based BCBAs, indicating that BCBAs were not always available in their districts. It appears that if BCBAs were available in certain districts, there were still so few of them compared to school psychologists that they had other schools and responsibilities to attend to. Therefore, they may have been less like to cross paths with the school psychologist.

When analyzing how video communication impacted school-based practitioners' satisfaction in collaborating with one another, a few findings emerged. Based on the results, video chat software is not a current preferred method of communication for either BCBAs or school psychologists. Between the two groups, school psychologists appear to currently use video chat software more frequently for collaboration than BCBAs do. Each group agreed that video chat became a more frequent format of communication during distance learning. They also appear to agree that video communication is a convenient tool for collaboration, but it is not always the practitioner's first choice. Email, texting, and phone calls appear to be preferred forms of communication that this sample currently uses more frequently than video chat. Further, the BCBAs and school psychologists sampled have a strong preference for in-person collaboration. While each group agreed that video chat became a more frequent format of communication because of distance learning, communicating face to face is the preference when collaborating with one another.

Neither group of practitioners reported a strong satisfaction when using video chat to collaborate with one another. BCBAs' responses varied across levels of satisfaction. Conversely, school psychologists most frequently selected a neutral response to their

level of satisfaction. Additionally, school psychologists indicated that they are *somewhat likely* to continue to use video chat as a method to collaborate, whereas BCBAs' responses varied again in their likelihood of continuing with this format. The BCBAs' pattern of responses appears to be reflected in their stronger preference for in-person collaboration. This finding may also be indicative of the participants varied responses. Some practitioners indicated that they work in the same office or same school as their counterpart and therefore have ample time to collaborate, while other respondents highlighted the challenges with serving multiple schools and rarely crossing paths with the other colleague. This finding appears to be related to the accessibility of the practitioners, as in-person communication remains the preference when collaborating. Both groups indicated that while they do not find satisfaction in using video chat to communicate, they recognize that there are times when it is a necessary and useful tool.

In conclusion, the impact of distance learning decreased the frequency of collaboration for school based BCBAs and school psychologists. Further, the increased use of video chat communication had no effect on practitioners' level of satisfaction when collaborating with one another. Each group appears to have a strong preference for in-person collaboration. When distance learning occurred, the two groups saw a decrease in their collaboration frequency as their primary communication method was no longer a safe option. Based upon the findings from this study, school-based practitioners may find it advantages to begin to build habits that support collaboration over video chat programs. It is apparent that in-person collaboration is the most preferred method of communication for these school-based practitioners, yet this limits the current advancements developed to support communication. Practitioners may find that developing positive habits and

expectations around virtual communication may continue to foster positive collaborative

skills and provide another "best method" of communication when supporting students.

Limitations and Future Directions

The data collection method used in the current study resulted in a smaller sample

size than anticipated. Recruitment through social media groups and pages, and snowball

sampling may have been a less effective strategy in recruiting participants compared to

direct interaction from the researcher or research team. Additionally, it is difficult to

gauge how many participants responded after seeing the posts on social media platforms

or if someone shared the survey with them. This would have allowed the primary

investigator to gain a better understanding on how best to reach their anticipated

participant pool. Further, it was difficult to identify potential school psychologist

participants who have worked with BCBAs, since BCBAs are not available in all schools.

This limited the sample of school psychologist practitioners as the expectation of this

study was that they have had collaborative experience with a BCBA who supports their

building(s). An additional limitation in participant recruitment is that participants were

not given any incentives to take the survey, which may be an additional factor related to

the small sample size.

Another limitation is that during the survey, participants had the option to respond

to qualitative items, rather than the question being required. The hope was that leaving

open-ended questions as optional would create more authentic answers to the question,

rather than forcing participants to share their perspectives. About half of the participants

responded to the open-ended questions, limiting other perspectives that may have been

left out if not forced to answer.

A final limitation is that BCBAs and school psychologists are not always employed by the school divisions in which they work. Some practitioners may be contracted out of private practices to work in the schools. This was a rule-out question for the current study. Additionally, not all schools employ BCBAs so finding participants who met the study's qualifications was difficult. Additionally, the survey asked whether the respondent was a BCBA or School Psychologist after the rule-out questions. To continue the investigation on these groups' collaborative perspectives, it may be beneficial to create two survey tracts from the beginning where each participant can select which profession they are currently employed in, and then complete the survey. In this study, the participants answered demographic questions, with the last being related to their current profession. Including this flow in the data collection would allow for the documentation of how many people began the survey, or fully completed it, in each profession.

Implications for School Psychologist Practice

The findings from this study support the continued discussion that school psychologists appear to benefit from the knowledge and skills gained through interprofessional collaboration. *Having colleagues who value collaboration* was the highest selected response as a factor that supports collaboration practices. With this information, practitioners may want to find ways to demonstrate to others that they value collaboration. This may be achieved through showing a willingness to work together through building a relationship that includes open dialogue, implementing suggestions from other professionals in their work, and being open and available to communicate in formats that their colleagues prefer.

As related to the previous literature, Strunk et al. (2019) found that when school-based professionals understand other team members knowledge and skills, collaboration improves. Thus, based on the current findings, practitioners may want to consider taking steps in familiarizing or re-familiarizing themselves with team members roles. As stated by King-Sears (2015), having a willingness to learn about the unique skills others on the team bring to the table is an important aspect to a collaborative team. Practitioners may demonstrate this knowledge to others through conversations or during problem-solving meetings. Additionally, the current study found that both school psychologists and BCBAs agree that working with colleagues who share their philosophies and value collaboration, are supporting factors that strengthening a collaborative relationship.

The school psychologists who were sampled in this study also reported a preference for in-person collaboration, whether before or after meetings, in passing, or meeting together during a scheduled time. This finding mirrors previous results in Hornsby et al.'s (2021) study on collaborative preferences between BCBAs and school psychologists. Based on the current findings, prioritizing in-person communication may strengthen a collaborative bond between team members, in addition to having a framework of knowledge for what each other brings to the table. With these findings, school psychologists can be leaders in fostering collaborative relationships with those they work with, by learning about other's roles and recognizing the benefits to fostering collaborative relationships with others when supporting students.

Finally, neither group indicated a strong level of satisfaction with using video chat to collaborate, however the convenience of it may continue to make it a useful tool.

With 56% of the school psychologist sample reporting that they are *somewhat likely* to

continue to use video chat software when collaborating, it appears that other factors

continue to influence their willingness to engage with this tool. For some school

psychologists in the sample, access to BCBAs in the schools is an example in which

video communication is viewed as a useful tool. When there are limited opportunities for

in-person communication, video communication appears to provide a coinvent

communication option for collaboration.

Overall, the sample in this study agrees that the use of video communication does

not appear to support collaborative practices in a post COVID-19 environment. Even

though practitioners report using it more since distance learning and enjoy the

convenience of it, they find that communicating in-person offers a better collaborative

experience. This finding may also be related to the sample, as 33% of the school

psychologist participants reported working in their current role for 10-15 years and may

find that in-person communication offers a more familiar and productive method for

collaborating than other forms of communication. There have been many changes

brought forth by COVID-19 and distance learning, and practitioners in this sample appear

to have voiced their preference for collaborative habits that they have the most familiarity

with. It may be advantageous to develop habits and expectations around video chat

communication to support collaboration as it is one tool that allows practitioners to have

a face-to-face meeting in separate locations. Improving school-based practitioners'

familiarity and comfort with the tool may help practitioners' have more positive

interactions and willingness to engage in this method of collaboration in the future.

In conclusion, school psychologists are uniquely positioned in their role to support students. Working in a collaborative interprofessional team is one aspect of how school-based professionals can best support their students. Specifically, when school psychologists work alongside BCBAs collaboratively, they can support each other in problem-solving and implementation of strategies to best meet the needs of their students. Based on the results, in-person communication is one of the most preferred ways in which these practitioners engage in collaboration. Therefore, when working in a collaborative team, it is important to learn and use strategies that promote collaborative success. The findings above show that school-based BCBAs and school psychologists prefer meeting in-person, above any other method of communication. Additionally, the findings show that even with entering back into a post COVID-19 environment, video chat does not seem advantageous when working collaboratively with others, with the caveat of practitioners who serve multiple buildings. In-person communication for collaboration remains the favored choice between school psychologists and BCBAs working in schools. While technological advancements remain a constant in an ever-changing world, developing skills and practices to support collaboration via technology may be advantageous to school-based practitioners working to find best methods when supporting their students and schools.

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APPENDIX A

Identification of Investigators & Purpose of Study

You are being asked to participate in a research study conducted by Taylor Bronaugh from James Madison University. The purpose of this study is to identify how COVID-19 has impacted collaboration between school psychologists and BCBAs working in the schools. This study will contribute to the researcher's completion of her master's thesis.

Research Procedures

This study consists of an online survey that will be administered to individual participants through Qualtrics (an online survey tool). You will be asked to provide answers to a series of questions related to the changes in collaboration brought forth by COVID-19.

Time Required

Participation in this study will require 10-15 minutes of your time.

Risks

The investigator does not perceive more than minimal risks from your involvement in this study (that is, no risks beyond the risks associated with everyday life).

Benefits

There are no direct benefits to participating in this study, Potential indirect benefits from participation in this study include impacting future school-based practitioners with the results that arise from your participation in the study. Your participation in this study may provide potential generalizable knowledge to drive future practices in the school.

Incentives

You will not receive any compensation for participation in this study.

Confidentiality

The results of this research will be presented at a graduate symposium in addition to a thesis paper. While individual responses are anonymously obtained and recorded online through the Qualtrics software, data is kept in the strictest confidence. No identifiable information will be collected from the participant and no identifiable responses will be presented in the final form of this study. All data will be stored in a secure location only accessible to the researcher. The researcher retains the right to use and publish non-identifiable data. At the end of the study, all records will be retained for five years and then destroyed. Final aggregate results will be made available to participants upon request.

Participation & Withdrawal

Your participation is entirely voluntary. You are free to choose not to participate. Should you choose to participate, you can withdraw at any time without consequences of any kind. However, once your responses have been submitted and anonymously recorded you will not be able to withdraw from the study.

Questions about the Study

If you have questions or concerns during the time of your participation in this study, or after its completion or you would like to receive a copy of the final aggregate results of this study, please contact:

Taylor Bronaugh   Dr. Tiffany Hornsby

School Psychology Program   School Psychology Program
James Madison University   James Madison University
bronautj@dukes.jmu.edu   Telephone: (540)
                                                              hornsbtc@jmu.edu

Questions about Your Rights as a Research Subject

Dr. Lindsey Harvell-Bowman
Chair, Institutional Review Board
James Madison University
(540) 568-2611
harve2la@jmu.edu

Giving of Consent

I have been given the opportunity to ask questions about this study. I have read this consent and I understand what is being requested of me as a participant in this study. I certify that I am at least 18 years of age. By clicking on the link below, and completing and submitting this anonymous survey, I am consenting to participate in this research.

If you do not wish to participate in the research study, please decline participation by clicking "disagree."

Taylor Bronaugh_____   _____
Name(s) of Researcher(s) (Printed)   Date

This study has been approved by the IRB, protocol #23-3563.

APPENDIX B

Demographics:

1. Do you primarily work in a school setting? (if no, end survey)
    1. Yes
    2. No
2. Do you primarily work for the school division? (if no, end survey)
    1. Yes
    2. No
3. Are you employed by the school district in which you work? (if no, end survey)
    1. Yes
    2. No
4. Did you primarily work in a school setting during the years 2019-2022? (if no, end survey)
    1. Yes
    2. No
    3. Other:
5. Choose the profession that represents your primary work area (if answer option 3 is selected, end survey)
    1. School Psychologist
    2. BCBA
    3. I am not a school psychologist or BCBA
6. How many total years have you been practicing in your current role?
    1. 0-5 years
    2. 5-10 years
    3. 10-15 years
    4. 15-20 years
    5. 20-25 years
    6. 25+ years

School Psychologist

1. Please rank your current preferred format of communication when collaborating with other school professionals (i.e. school counselors, administrators, SLPs, BCBAs, OTs, etc.)
    a. Phone call
    b. Texting
    c. Email
    d. Video chat software
    e. Before or after meetings
    f. In person though passing
    g. In person though a scheduled meeting together
    h. Other
    i. I don't communicate with others
2. Prior to COVID-19 and distanced learning, how often did you collaborate with the BCBA(s) that supports your school building(s)?

        a. Never
        b. 1-2 days a week
        c. 3-4 days a week
        d. 5 days a week
        e. Every other week
        f. Once a month
        g. Once a quarter

3. Prior to COVID-19 and distanced learning, what was your preferred method of communication with the BCBA(s) that supports your school building(s)?
        a. Phone call
        b. Texting
        c. Email
        d. Video chat software
        e. Before or after meetings
        f. In person through passing
        g. In person through a scheduled meeting together
        h. Other
        i. I don't communicate with the BCBA

4. During COVID-19 and distanced learning, how often did you collaborate with the BCBA(s) that supports your school building(s)?
        a. Never
        b. 1-2 days a week
        c. 3-4 days a week
        d. 5 days a week
        e. Every other week
        f. Once a month
        g. Once a quarter

5. What factors hindered your ability to collaborate during distanced learning with the BCBA(s) that supports your school building(s)? Select all that apply
        a. Not enough time to collaborate
        b. A disconnect between preferred methods of communication
            i. Please explain
        c. Challenges with access to internet
        d. Feeling that collaboration was not the best use of time
        e. Not having shared values with colleagues
        f. Nothing hindered my ability to collaborate during distanced learning
        g. Other: Please explain

6. What factors supported your ability to collaborate during distanced learning? Select all that apply
        a. Having enough time to collaborate
        b. A shared preferred method of communication
            i. Please indicate the methods of communication
        c. Shared philosophies
        d. Colleagues who value collaboration
        e. Nothing supported my ability to collaborate during distanced learning
        f. Other: Please explain

7. How frequently do you currently use each form of communication to collaborate with school professionals listed below (1. Never, 2. Rarely, 3. Sometimes, 4. Often, 5. Always)
   a. Phone call
   b. Texting
   c. Email
   d. Video chat software
   e. Before or after meetings
   f. In person though passing
   g. In person though a scheduled meeting together
   h. Other
8. Has this frequency changed as a result of COVID-19 and distanced learning? (More frequent, Less frequent, No change)
   a. Phone call
   b. Texting
   c. Email
   d. Video chat software
   e. Before or after meetings
   f. In person though passing
   g. In person though a scheduled meeting together
   h. Other
9. Please provide additional comments to the above question.
10. How satisfied are you in using video chat software to collaborate with the BCBA(s) that supports your school building(s)?
    a. Very dissatisfied
    b. Somewhat Dissatisfied
    c. Neither
    d. Somewhat Satisfied
    e. Very satisfied
    f. Please explain your answer
11. How likely are you to continue to use video chat software to collaborate with the BCBA(s) that supports your school building(s)?
    a. Not likely
    b. Somewhat likely
    c. Very likely
    d. Other:
    e. Please explain your answer

BCBA

1. Please rank your preferred format of communication when collaborating with other school professionals.
   1. Phone call
   2. Texting
   3. Email
   4. Video chat software
   5. Before or after virtual meetings

      6. Other
      7. I don't communicate with others
2. Prior to COVID-19 and distanced learning, how often did you collaborate with the school psychologist(s) that supports your school building(s).
      1. Never
      2. 1-2 days a week
      3. 3-4 days a week
      4. 5 days a week
      5. Every other week
      6. Once a month
      7. Once a quarter
3. Prior to COVID-19 and distanced learning, what was your preferred method of communication with the school psychologist(s) that supports your school building(s).
      1. Phone call
      2. Texting
      3. Email
      4. Video chat software
      5. Before or after meetings
      6. In person though passing
      7. In person though a scheduled meeting together
      8. Other
      9. I don't communicate with the school psychologist(s)
4. During COVID-19 and distanced learning, how often did you collaborate with the school psychologist(s) that supports your school building(s).
      1. Never
      2. 1-2 days a week
      3. 3-4 days a week
      4. 5 days a week
      5. Every other week
      6. Once a month
      7. Once a quarter
5. What factors hindered your ability to collaborate during distanced learning with the school psychologist(s) that supports your school building(s).
      1. Not enough time to collaborate
      2. A disconnect between preferred methods of communication
          1. Please explain
      3. Challenges with access to internet
      4. Feeling that collaboration was not the best use of your time
      5. Not having shared values with colleagues
      6. Nothing hindered my ability to collaborate during distanced learning
      7. Other: Please explain
6. What factors supported your ability to collaborate during distanced learning?
      1. Having enough time to collaborate
      2. A shared preferred method of communication
          1. Please indicate the methods of communication

3. Shared philosophies
4. Colleagues who value communication
5. Nothing supported my ability to collaborate during distanced learning
6. Other: Please explain

7. How frequently do you currently use each form of communication to collaborate listed below (1. Never, 2. Rarely, 3. Sometimes, 4. Often, 5. Always)
    1. Phone call
    2. Texting
    3. Email
    4. Video chat software
    5. Before or after meetings
    6. In person though passing
    7. In person though a scheduled meeting together
    8. Other

8. Has this frequency changed as a result of COVID-19 and distanced learning? (More frequent, Less frequent, No change)
    1. Phone call
    2. Texting
    3. Email
    4. Video chat software
    5. Before or after meetings
    6. In person though passing
    7. In person though a scheduled meeting together
    8. Other

9. Please provide additional comments to the above question.

10. How satisfied are you in using video chat software to collaborate with the school psychologist(s) that supports your school building(s).
    1. Very dissatisfied
    2. Dissatisfied
    3. Neither
    4. Satisfied
    5. Very satisfied
    6. Please explain your answer

11. How likely are you to continue to use video chat software to collaborate with the school psychologist(s) that supports your school building(s).
    1. Not likely
    2. Somewhat likely
    3. Very likely
    4. Other:
    5. Please explain your answer

APPENDIX C

Facebook Groups or Pages where the survey was accessible.

Said No School Psychologist Ever.

School Psych to School Psych.

Virginia BCBAs & LBAs- Resources & Support for ABA Practice.
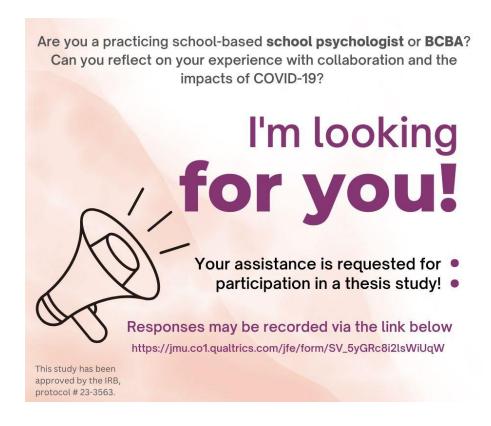
School-based ABA.

School-based BCBAs.

Applied Behavior Analysis Trainings.

JMU School Psychology.

APPENDIX D

Social Media Flyer

APPENDIX E

Survey questions mapped onto the research questions.

1. How did communication between school psychologist and BCBAs change during distanced learning	2. Have schools psychologists' and BCBA's collaborative behaviors and practices changed as a result of the COVID-19 pandemic?	3. How did the use of video communication change practitioners' satisfaction in collaboration with each other?	4. If collaborative behaviors and practices changed as a result of the COVID-19 pandemic, how did it change?
Prior to COVID-19 and distanced learning, what was your preferred method of communication with the behavior analyst(s) that supports your school building(s)?	During COVID-19 and distanced learning, how often did you collaborate with the behavior analyst(s) that supports your school building(s)?	How satisfied are you in using video chat software to collaborate with the behavior analyst(s) that supports your school building(s)?	See research question 1 and 2 data
Please rank your current preferred format of communication when collaborating with other school professionals.	Prior to COVID-19 and distanced learning, how often did you collaborate with the behavior analyst(s) that supports your school building(s)?	How likely are you to continue to use video chat software to collaborate with the behavior analyst(s) that supports your school building(s)?	
How frequently do you currently use each form of communication to collaborate listed below (1. Never, 2. Rarely, 3. Sometimes, 4. Often, 5. Always)	What factors hindered your ability to collaborate during distanced learning with the behavior analyst(s) that supports your school building(s)?		
Has this frequency changed as a result of COVID-19 and distanced learning?/ If yes, how has the frequency of communication changed?	What factors supported your ability to collaborate during distanced learning?		