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BOARD CERTIFIED BEHAVIOR ANALYSTS IN PUBLIC SCHOOLS:
CHALLENGES AND OPPORTUNITIES

by

Danielle Lyons

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTERS OF SCIENCE

in

Special Education

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2023

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ABSTRACT

Board Certified Behavior Analysts in Public Schools: Challenges and Opportunities

By

Danielle Lyons

Utah State University, 2023

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Department: Special Education and Rehabilitation

Board Certified Behavior Analysts (BCBAs) can play an important role in schools. However, little is known about the scope of work that BCBAs are tasked with and to what degree this scope of work is in alignment with the ethical code of conduct set forth by the Behavior Analyst Certification Board (BACB). The purpose of this study was to survey BCBAs who self-identify as working in public schools in effort to learn more about their experiences working in this setting. The research team emailed a survey containing 23 questions pertaining to BCBAs working in public schools. These questions ranged in topics related to caseload to ethical dilemmas BCBAs may encounter while working in schools. The data collected from this survey were analyzed both quantitatively and qualitatively. This paper is meant to spark further discussion and research on how BCBAs can be more effective in schools through training and supervision, collaborating with school administrators on systems-level concerns, resolving ethical concerns, and clarifying roles and responsibilities in public schools.

(53 Pages)

PUBLIC ABSTRACT

Board Certified Behavior Analysts in Public Schools: Challenges and Opportunities

Danielle Lyons

Board Certified Behavior Analysts (BCBAs) can play an important role in schools. The purpose of this study was to survey BCBAs who self-identify as working in public schools in effort to learn more about their experiences working in this setting. This paper is meant to spark further discussion and research on how BCBAs can be more effective in schools through training and supervision, collaborating with school administrators on systems-level concerns, resolving ethical concerns, and clarifying roles and responsibilities in public schools.

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Introduction

According to the Behavior Analyst Certification Board (BACB), 12.24% of Board Certified Behavior Analysts (BCBAs) who participated in the February 2016 Job Task Analysis survey reported that they worked in education (BACB, 2016). While this is a small percentage of practicing BCBAs, the demand for BCBAs has increased 80% between 2010 and 2019 with increasing job opportunities in all areas, including working in education and public schools (BACB, 2020). According to Burning Glass Technologies (2015), in 2014 28% of behavior analyst job postings are listed under the Educational Services category. This report also included the 10 most frequent occupations with behavior analyst in the description. Among these top 10 occupations, four are specific to educational settings: special education teachers, teacher assistants, educational counselors, and education administrators (Burning Glass Technologies, 2015). Although there is evidence to suggest that BCBAs are working in schools, there is little research with regard to their scope of work (e.g., populations served) or how BCBAs are blending the culture and norms of public schools with the ethical requirements of the BACB.

In schools, BCBAs are commonly asked to consult with school teams concerning students who engage in problem behavior (Luiselli, 2008). It is estimated that 15-20% of students in a school will require Tier 2 behavior support, and approximately 5% will require Tier 3 support (Crone et al., 2004). Problem behavior in school can include, but is not limited to physical and verbal aggression, disruption, self-injurious behavior (SIB), and non-compliance. Problem behaviors in the classroom can lead to lower academic

achievement and can inhibit a child's social and emotional development (Hojnoski & Missal, 2010). Schools have the ability to change a student's trajectory by implementing evidence-based behavior support, and BCBA's can help schools achieve these goals. In addition to Tier 2 and Tier 3 behavior support, improving school climate is also an important goal for schools.

A meta-analysis consisting of 13 studies showed a significant small effect between school climate and problem behaviors over time (Reaves et al., 2018). School climate is defined as the "pattern of students', parents' and school personnel's experience of school life [that] reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures" (Reaves et al., 2018; Cohen et al., 2009). BCBA's can affect the school climate by working with school staff to provide adequate support for students who engage in problem behaviors. BCBA's can also help teachers build rapport with difficult students and improve their interpersonal relationships. Working with teachers and administrators, BCBA's can implement positive behavioral strategies school-wide and in classrooms and help shape organizational structures. They can also provide more intensive interventions for individual students to help these students progress towards school and individual goals.

Given that public schools are a unique culture and perhaps very different from the settings in which BCBA's have previously worked or received their pre-service training and supervision, there is the potential for conflict between the norms and values of school personnel and the BCBA. BCBA's are required to provide service within the BACB code of conduct, the *Ethics Code for Behavior Analysts* (2020). It is possible that school personnel who supervise practicing BCBA's (e.g., building or district

administration) are unaware of the ethical and professional standards for BCBA's, and that the environment of the school or the expectations of the district may conflict with this ethical code. School districts may have policies, such as restriction on a teaching procedure or behavior management strategy which conflict with the BACB's ethics code (Broadhead, 2012). Because schools may not be familiar with the code, this requires BCBA's to make ethical decisions based on the guidelines set by the BACB, while balancing the policies of the district (Rosenberg, 2018). To date there is limited data on how well BCBA's are integrating into the public schools.

In addition to the ethical code, another potential challenge that BCBA's might face is the extent to which they received training working in schools. One of the key components of becoming a successful BCBA is the required supervision from a practicing BCBA (BACB, 2019). Supervisors provide competency-based instruction while modeling how to handle different situations and new skills (Turner, 2016). BCBA's in schools will face different situations than BCBA's in clinical settings. Due to a suspected lack of supervisors with a background working in schools, it is possible that preservice BCBA's might not have received supervision with respect to working in schools, and this could impact their effectiveness working in this setting.

Literature Review

I used PsycINFO via EBSCOhost and found 28 articles related to Board Certified Behavior Analysts in schools, by searching the terms *Board Certified Behavior Analyst* and *schools*. I eliminated articles that were not a match based on factors such as clinical or medical settings, terrorism, and sports related traumatic brain injuries (TBI). I found

10 articles that were relevant based on BCBA's working in public schools. Four of these articles were related to BCBA's working in rural settings. Using the same database, I found 4 articles relating to supervision, by searching the terms, *Board Certified Behavior Analysis* and *supervision*. I eliminated articles that were not a match based on factors such as articles relating to medical professionals, and I found 3 articles relating to effective supervision. I eliminated one article related to physicians. Using the same database I found 1,729 articles using the terms *consultants*, *schools* and *behavior*. I eliminated articles related to clinical and medical settings, psychologist and nurse consultations, and military related service, and found 47 relevant articles. Using the same database, I found 2 results using the terms *Behavior Analyst* and *ethics*. I eliminated the article relating to drug use in schools. I will describe articles most relevant to the current project below.

According to Bailey and Burch (2011), behavior analysts work with diverse populations and many of these populations are vulnerable or at-risk. Because of this, BCBA's are likely to confront ethical dilemmas (Bailey & Burch, 2011). Brodhead and Higbee (2012) discuss ways to promote ethical behavior and critical thinking in professional organizations. Although BCBA's are required to continue their ethical education, Brodhead and Higbee (2012) state the need of individual organizations, such as public school districts, to implement a system to teach and maintain ethical behavior, while following the BACB's Ethics Code for Behavior Analysts. It is the responsibility of the professional organization to familiarize themselves with the ethical code and teach these skills to their employees. The authors suggest having a designated individual oversee ethical concerns and training. While some companies may see this as a waste of

time or resources, the authors argue that companies will actually save money over time because there will be less unsatisfied customers and staff will be better equipped to handle difficult ethical situations in the future. This individual could also help balance the need for more clients for more revenue, but also prevent individuals from taking more clients than they can ethically serve. Specifically, in public schools, these individuals can help BCBA's navigate ethical issues related to district policies. The ethical supervision could provide training through problem-solving exercises and answer ethical questions inexperienced employees may encounter.

While the suggestions Higbee (2012) present are best practice and would help schools overall, these ideas may be difficult to implement in public schools. While BCBA's are being hired in schools (Burning Glass Technologies, 2015), the field of behavior analysis is a relatively new field and the BACB was founded in 1998 (Shook, 2005). Because the BCBA credential is relatively new, many schools may not be aware of BCBA's or may not fully understand what their jobs entail, especially in relation to public education. Unfortunately, many public schools would not be able to follow the recommendations of Broadhead and Higbee (2012) and hire an individual with enough experience and training to act as a designated individual to oversee ethical concerns. Public schools, those especially in rural or inner-city schools, have limited financial resources due to government funding and low local property wealth (Ikpa, 2016). Many schools may not see the benefit of hiring a BCBA, nonetheless someone to oversee and support ethical dilemmas, especially if they have limited funding for other costs such as teachers and staff, supplies, and building maintenance.

Tyre and Feuerborn (2017) discuss another challenge BCBA's might face in schools. This is staff opposition to behavioral interventions, such as those outlined in the schoolwide positive behavior interventions and supports (SWPBIS) framework. SWPBIS is "a schoolwide, multi-tiered approach with an emphasis on prevention and proactive intervention" (p. 145) and consists of clear and defined expectations taught to all students while reinforcing appropriate behaviors (Sugai & Horner, 2009; Tyre & Feuerborn, 2017). Research shows SWPBIS team leaders report many barriers to implementing and sustaining the implementation of SWPBIS in schools. This includes staff buy-in/commitment (Pinkelman et al., 2015; Tyre & Feuerborn, 2017) and philosophical differences (Coffey & Horner, 2012, McIntosh et al., 2014; Tyre & Feuerborn, 2017). Tyre and Feuerborn (2017) conducted a qualitative analysis of open-ended questions from 36 schools implementing SWPBIS. Participants included all staff working directly with students such as teachers, administration, paraeducators, classified staff, and certified support staff. The authors found that in schools where fidelity was low, staff opinions of SWPBIS was also low. Of 36 schools surveyed, 16% of the responders self-reported they did not have a full understanding of PBIS. Twenty-three percent of respondents expressed philosophical concerns surrounding SWPBIS, such as a lack of punishment for inappropriate behavior and providing rewards to students for meeting basic behavioral expectations. Twenty-five percent of respondents expressed implementation concerns. These concerns included consistency of implementation across staff members, implementation fidelity, and resources available. It is clear that staff buy-in can be challenging in schools, and BCBA's can help promote buy-in.

BCBAs working in schools could help mitigate concerns related to buy-in by providing supportive training, coaching, and constructive feedback. While most teachers and staff adopt new programs, 16% of staff may continue to resist implementation (Rogers, 2003 as cited by Tyre & Feuerborn, 2017) and will not start implementing a program without direct intervention (Hall & Hord, 2011 as cited by Tyre & Feuerborn, 2017). BCBAs are equipped to provide this direct intervention to struggling staff, while also making sure all staff are implementing SWPBIS with fidelity.

While many studies have shown behavioral interventions, such as SWPBIS to be effective in decreasing problem behaviors, not all public schools have access to the same resources and programs. Bethune and Kiser (2017) discuss a shortage of qualified teachers and BCBAs able to provide behavioral interventions in rural settings (U.S Department of Education, 2016; Bethune and Kiser, 2017). They describe a training program to help their community have access to both special education teachers and BCBAs. This program includes a master's in special education and approved BCBA coursework. Combining these two programs helps build collaboration between teachers and behavior specialists. Students also complete internships as part of the program, so future BCBAs have experience working in the local schools.

Bethune and Kiser (2017) discuss potential ethical dilemmas that their students may face while working in rural schools. For example, students with disabilities in these rural settings may be enrolled in more than one program (e.g., school and summer camp), and the same staff work in both programs. This may cause a conflict of interest. Parents may come to the staff working at the camp and ask about supports that are being provided to their child in school. This puts the potential BCBA or teacher in a dual relationship

with the parent, and they are at risk of providing inappropriate information to the parents about the other setting. Another potential challenge in rural communities is if a BCBA works in the community in which they live. In these situations, BCBA's may see potential clients at work, schools, community, and religious events. BCBA's practicing under these conditions need training and supervision that teaches them how to handle potential dual relationships or other ethical concerns common in rural communities. Bethune and Kiser (2017) calls attention to the need for BCBA training and supervision specific to public school settings.

In summary, BCBA's face unique challenges when working within the public school system. The BACB has their ethical code, but BCBA's also need to follow the guidelines established by the schools. Some school personnel may resist behavioral supports in their schools, and even without resistance, systematic change takes time and consistency. While some universities are starting to create programs designed to help BCBA's gain experience in public schools, research is needed to better understand the challenges faced by BCBA's working in schools, and this research can then inform the development and refinement of BCBA training programs.

Purpose Statement and Research Questions

The purpose of this study is to survey BCBA's that have self-identified as working in public education in aim of learning more about their experience in working in schools. The goal of this project is to expand our understanding of the scope of work that BCBA's are tasked with in schools and how BCBA's are blending the ethical code set by the BACB and adhering to districts' standards and expectations. There are four overarching

questions this project hopes to address: 1) In what school contexts do BCBA's work (e.g., job title, type of school, district urbanicity, etc.). 2) What is a BCBA's scope of work in schools (e.g., caseload size, populations served, etc.)? 3) What potential ethical dilemmas do BCBA's face when working in schools? 4) What does supervision entail for BCBA's working in public schools?

Method

Participants and Setting

Participants included over 300 BCBA's who work in public schools. Participants were eligible for participation if they currently work or have worked in a public-school setting, including public charter schools, in the last 3 years. Participants were not eligible for participation if they are not currently certified as a BCBA, do not work in a public school, or worked in a public school more than three years ago. The study took place online, as participants completed an online survey via Qualtrics, an online survey platform (Qualtrics, 2018).

Materials

The researcher created an electronic survey via Qualtrics (Qualtrics, 2018) that provided an opportunity for participants to provide informed consent (Appendix A) and the study survey questions (Appendix B). Potential participants only accessed the survey questions once they provide informed consent on the first page of Qualtrics. The survey

contained 23 questions related to BCBA's working in public schools. These questions were developed collaboratively with the student researcher and faculty mentors at Utah State University and Northeastern University. Questions pertained to general job information, populations served, caseload numbers, supervision practices, roles and responsibilities, behaviors targeted for intervention, and potential ethical dilemmas. Of the 23 survey questions, 20 were multiple choice/multiple answer, and two were open-ended.

Procedures

The research team sent out an email invitation with a link to the survey (Appendix C) to potential participants through local, regional, and national professional organizations. The research team also emailed their professional contacts who are BCBA's working with schools, and posted the invitation on social media. The invitation described the study and provided a link to Qualtrics. If participants clicked on the link in the invitation, they were directed to Qualtrics and provided detailed information about the study, including potential risks and benefits, and the opportunity to provide informed consent (Appendix A). If participants provided consent, they then proceeded to the survey questions (Appendix B). If participants indicated that they did not wish to participate in the study, they proceeded to a brief message via Qualtrics thanking them for their time, and they did not have access to the survey. If participants provided informed consent, then Qualtrics took them to the survey (Appendix B).

The student researcher checked the number of responses every other day. Once 75 participants completed the survey, data analysis will begin. There were less than 75

responses after two weeks, so a follow up email reminder (Appendix D) was sent as well as another post on social media (Appendix E). After another two-week time period, there were more than 300 survey responses. The researcher closed the survey and began analysis on the data.

Data Analysis and Intercoder Agreement

The researcher analyzed participant survey data both quantitatively and qualitatively. For each of the multiple choice/multiple answer questions, data were analyzed in terms of percentage of participants who selected a particular answer choice. This was calculated by dividing the number of responses with a particular answer selection by the total number of responses and multiplying by 100.

The research team planned to conduct qualitative data analysis for the two open-ended questions using open coding process (Patton, 2002) where responses were coded into themes. Due to the large number of survey responses (372 respondents), the master's committee agreed that qualitative analysis was beyond the scope of what is required for a master's thesis. These data were not analyzed for the current study and hence are not included in this manuscript. The proposal document indicated that the student researcher and either a faculty advisor or research team member would review participant responses and identify patterns in the data. Once these patterns, or themes, were identified and discussed as a group, the student researcher would draft definitions of potential themes and continually revise the definitions as she sorted through the data and code participant responses with themes. This iterative process would have continued until all participant responses are coded with at least one theme. An independent reviewer would have coded

a randomly selected 20% of responses to ensure reliability of coding. The point-by-point intercoder agreement would have been calculated by dividing the number of agreements by the number of agreements plus disagreements and multiplying by 100. Again, these data are not included in the current manuscript due to the extremely large quantity of qualitative data that were retrieved from the 372 participants.

Results

Demographic Information of Participants

Table 1 includes the demographic information of survey participants. 71.91percent of participants were cisgender women, 36% preferred not to answer, 9.57% identified as other, 6.79% identified as cisgender men, 0.62% identified as nonbinary, and 0% identified as transgender women or men. Participants' ages ranged from 26 to 70 years old with 26.93% being between the ages of 25-35, 47.31% between the ages of 36-45, and less than 3% being over the age of 66. Most participants received their BCBA after 2005, with only 8.12% receiving their certification between 1988 and 2005. 43 percent of participants received their BCBA certification between the years 2011 and 2015 and 35.31% received it between 2016-2021. 82.61percent of participants identified as European American White, 5.90% identified as other, and 4.94% identified as Hispanic of Latina/o/x. 27.16 percent of participants identified their job title as a Board Certified Behavior Analyst (BCBA), 16.65% identified as a behavior specialist or interventionist, and 14.2% identified as a behavior analyst.

Table 1*Demographic Information of Participants*

Characteristic	Percent of Participants
Gender	
Cisgender Woman	71.91%
Prefer not to Answer	36%
Other	9.57%
Cisgender Man	6.79%
Nonbinary	0.62%
Transgender Woman	0%
Transgender Man	0%
Age	
25-35	26.93%
36-45	47.31%
46-55	16.41%
56-65	7.12%
66-75	2.17%
Year Certified as a BCBA	
Before 2000	0.31%
2000-2005	7.81%
2006-2010	13.44%
2011-2015	43.13%
2016-2021	35.31%
Race and Ethnicity	
European American White	82.61%
Other	5.90%
Hispanic or Latina/o/x	4.94%
Asian	3.73%
African American/Black	1.24%
Middle Eastern and North African (MENA)	0.93%
Native American	0.31%
Pacific Islander	0.31%
Alaska Native	0%
Native Hawaiian	0%
Job Title	
Board Certified Behavior Analyst (BCBA)	27.16%
Behavior Specialist/Interventionist	16.65%
Behavior Analyst	14.2%
Multiple Titles	13.27%
Director	8.96%
Consultant	6.79%

Table 1 (continued)

Coordinator	3.09%
Behaviorist	2.47%
School Psychologist	1.85%
Special Ed Teacher	1.54%
Manager	1.54%
Special Education Teacher Specialist	0.93%
Unknow	0.62%
Supervisor	0.62%
Professor	0.62%
LBA	0.62%
Coach	0.62%
Autism Specialist	0.62%
Administration	0.62%
CEO	0.31%
Behavioral Health Specialist	0.31%
Behavior Therapist Supervisor	0.31%
ABA Specialist	0.31%

Public School Demographic Information

Table 2 provides information about participants' employer's demographics including the type, location, and the urbanicity of the school. Only 10.49% of participants worked for a public charter school, while 89.51% reported that they do not work for a public charter school. There were 14 states and territories that did not have BCBAs participate in the survey. There were also 40 states and territories had a small level of participation rates in this survey (0.32 % - 6.49%). California (17.21%), Massachusetts (12.66%), and New Jersey (9.09%) were states with the highest participation rates. 47.99 percent of participants worked in urbanized areas consisting of 50,000 or more people, 40.60% worked in urban clusters with a population between 2,500 and 50,000, and

11.41% worked in rural areas, which are defined as all areas not included within the urban area. 60.47 percent of participants worked for the local education agency (LEA) and 22.59% of participants worked for external agencies that partner with public schools.

Table 2

Public School Demographic Information

Characteristic	Percent of Participants
Works for a Public Charter School	
No	89.51%
Yes	10.49%
State or Territory of Residence	
Alabama	1.62%
Alaska	0%
Arizona	0%
Arkansas	0.65%
California	17.21%
Colorado	2.60%
Connecticut	1.95%
Delaware	0.32%
Florida	4.22%
Georgia	0.65%
Hawaii	1.30%
Idaho	0.65%
Illinois	3.25%
Indiana	1.62%
Iowa	1.95%
Kansas	1.30%
Kentucky	0.65%
Louisiana	0.65%
Maine	1.62%
Maryland	1.95%
Massachusetts	12.66%
Michigan	1.30%
Minnesota	0.65%
Mississippi	0%
Missouri	1.95%
Montana	0%
Nebraska	0.32%
Nevada	0.32%

Table 2 (continued)

New Hampshire	2.27%
New Jersey	9.09%
New Mexico	0.65%
New York	2.60%
North Carolina	0.32%
North Dakota	0%
Ohio	1.30%
Oklahoma	0%
Oregon	0.65%
Pennsylvania	6.49%
Rhode Island	0.32%
South Carolina	0.97%
South Dakota	0%
Tennessee	0.97%
Texas	2.27%
Utah	5.19%
Vermont	0.65%
Virginia	1.30%
Washington	2.60%
West Virginia	0.65%
Wisconsin	0%
Wyoming	0%
Washington DC	0.32%
American Samoa	0%
Guam	0%
Northern Mariana Islands	0%
Puerto Rico	0%
U.S. Virgin Islands	0%
District Urbanicity ^a	
Urbanized Area	47.99%
Urban Cluster	40.60%
Rural	11.41%

^a. Urbanized areas are defined as have 50,000 or more people. Urban clusters have at least 2,500 people and less land 50,000 people. Rural includes all other areas not included within an urban range

School Demographic Information

Table 3 includes characteristics of survey participants' caseload, scope of work, and the population they serve. Participants worked primarily with school-aged children

(elementary through high school), with each category falling between 19% and 29%. 19.83% reported working with students in pre-kindergarten and less than 9% reported working with post-high students. 16.17 percent of participants worked with Autistic students and 14.24% worked with students who were classified as developmentally delayed. Although most participants worked with Autistic students and students who were classified as developmentally delayed, participants reported working with a variety of disabilities 60.77% (See Table 3 for an exhaustive list of these disabilities and participants responses). A majority of participants reported a small case-load of one – 20 (45.75%), and 21-40 (28.76), there were a number of participants who reported to currently have a caseload of 41-more than 101 (25.5%). When asked what other roles (i.e., expectations) they fulfill in their job, 27.40% identified supervising Registered Behavior Technicians (RBT) and 26.68% listed administration. 40.98 percent of participants reported 86-100% of their contracted time at work is allocated to providing behavioral services that meet the guidelines of behavior analytic work defined by the BACB, with the remaining 59.01% reporting that less than 86% of their contracted time at work is allocated to providing behavioral services that meet the aforementioned guidelines. When asked which problem behavior they most commonly provided services for, most survey participants identified disruption, physical aggression, and non-compliance as the most frequent behaviors. Disruptive behavior was the most with 46.60% BCBA's citing this was the number one behavior they were asked to help with. Physical aggression and non-compliance were the next behaviors identified as the ones BCBA's are asked to help with, with both being at 38.34%.

Table 3*Participant Caseload and Scope of Work*

Characteristic	Percent of Participants
Grade Level Served	
Pre-Kindergarten	19.83%
Elementary School	28.53%
Middle School	23.75%
High School	19.83%
Post-High School	8.06%
Population Served	
Autism	16.17%
Developmental Delay	14.24%
Emotional/Behavioral	13.49%
Intellectual Disabilities	12.95%
Attention Deficit Hyperactivity Disorder (ADHD)	12.41%
Learning Disabilities	11.18%
Other Health Impairments (OHI)	9.78%
General Education	8.81%
Other	0.97%
Number of Students on Caseload	
1-20	45.75%
21-40	28.76%
41-60	11.11%
61-80	5.56%
81-100	2.29%
101+	6.54%
Other Roles	
Registered Behavior Technician Supervision	27.40%
Administration	26.68%
BCBA Supervision	25.59%
Other ^a	8.17%
Educational/Psychological Assessment	5.99%
Classroom Teacher	5.63%
Speech Language Pathologist	0.54%
Percentage of Time Allocated to Behavioral Service	
0-25%	9.18%

26-50%	9.18%
51-57%	19.67%
76-85%	20.98%
86-100%	40.98%
Most Common Problem Behavior	
Requiring Service	
Disruption	46.60%
Physical Aggression	38.34%
Non-Compliance	38.34%
Academic Difficulties	5.18%
Self-injury	4.70%
Other	2.07%
Verbal Aggression	0.52%
Feeding Difficulties	0%
Gang Related Activities	0%
Weapons on Campus	0%
Drug Activity	0%

Participant Caseload and Scope of Work

Table 4 includes information about BCBA supervision in the public-school setting. Participants reported they received varied levels of supervision in a public-school setting. Only 33.22% of participants reported more than 75% of their supervision took place in a public school, while 38.76% reported that 0-10% of their supervision happened in a school setting.

The remaining 28.01% of responses indicated that they received some level between 11-75% of their supervision within the school setting. To extend upon the previous question the researchers asked participants if they thought that their supervisors were knowledgeable related to work in public schools, 40.66% of participants reported that all their supervisors were knowledgeable about working in public schools, while the other

59.34% indicated that only some to none of their supervisors were knowledgeable about working in schools.

Table 4

BCBA Supervision in Public Schools

Characteristic	Percent of Participants
Percentage of BCBA Supervision Hours Received in a Public-School Setting	
0-10%	38.76%
11-30%	10.10%
31-50%	10.42%
51-75%	7.49%
More than 75%	33.22%
BCBA Supervisor(s) Knowledge about Working in Public Schools	
All Supervisors	40.66%
Most Supervisors	15.41%
Some Supervisors	26.23%
None Supervisors	17.70%

Ethical Concerns Faced by BCBA's Working in Public Schools

Table 5 displays information about ethical concerns faced by BCBA's working in public schools. Participants reports varied related to their employer's knowledge of the BACB code of ethics. 51.65 percent of participants reported their employers were aware of the ethical requirements set by the BACB, with 28.21% indicating their supervisors are not aware, and 20.15% are unsure if their supervisors know. Out of the 51.68% of participants that indicated their supervisor knew about the BACB's outlined ethical requirements only 42.86% reported they were the one that made their employer aware of the requirements. Related to their experiences, a large number of participants reported

that they encountered situations that could be in conflict with the BACB code of ethics. 80.95 percent of participants reported they had encountered situations that could be in conflict with the ethical requirements of the BACB, with only 19.05% indicating they had not had an ethical requirement.

Table 5

Ethical Concerns Faced by BCBA's Working in Public Schools

Characteristic	Percent of Participants
Employers Aware of Ethical Requirements	
Yes	51.65%
No	28.21%
Do Not Know	20.15%
How Employers Became Aware of Ethical Requirements	
Employee Made Them Aware	42.86%
Other	38.57%
Unsure How They Were Made	11.43%
Aware	
Another Colleague Made Them	7.14%
Aware	
BCBA's That Have Encountered Situations That Could Be in Conflict with Ethical Requirements of the BACB	
Yes	80.95%
No	19.05%

Note. This table describes if employers are aware of the Ethic Code for Behavior Analysts BCBA's are required to follow (BACB, 2022). One of the requirements found in the ethical code is for BCBA's to inform their employer of these ethical standards.

Discussion

The purpose of this study was to gather more information from BCBA's that are currently working or have worked in the public-school setting in the last three years. BCBA's are in high demand in education, but there is little research describing their work

in relation to the ethical code set by the BACB while working in a public education system. By surveying more than 300 BCBA's working in education, this study was able to collect a sample of information surrounding four overarching questions: 1) In what school contexts do BCBA's work (e.g., job title, type of school, district urbanicity, etc.)? 2) What is a BCBA's scope of work in schools (e.g., caseload size, populations served, etc.)? 3) What potential ethical dilemmas do BCBA's face when working in schools? 4) What does the extent to which BCBA's working in schools received their supervision experience in schools with a supervisor knowledgeable about public schools or BCBA's working in public schools?

Contexts in which BCBA's work

Results indicate that the majority of respondents work in urbanized areas or clusters. Only 11.41% of BCBA's who took the survey indicated they worked in rural areas. This survey data supports the claims made by Bethune and Kiser (2017) that rural areas often lack the funding and support to hire qualified behavior experts, including special education teachers and BCBA's. As a result, children with intensive behavioral concerns who are living in rural areas may not be getting the services and interventions they need. More research needs to be conducted related to expanding behavioral services to rural communities and what BCBA's who work in rural areas need in order to successfully serve those communities.

Another area in this survey with minimal representation was public charter schools. Only 10.49% of participants indicated they worked at a charter school. Charter schools can also have their own unique systems and culture. More research needs to be

done on how BCBA's support charter schools' staff and students. Additional research would also need to be done to differentiate between the needs potential BCBA's would need working in a public-school versus a public charter school.

The majority of participants were employed by the local LEA or school district. Further data should be collected to explore the difference between working for the local school district or being employed by an outside agency that either partners with the school district or is an independent contractor. It would be interesting to see if there were more or less ethical dilemmas and the type of potential dilemmas if the BCBA was employed by an outside agency compared to working for the schools. This study did not take into consideration how schools perceive the effectiveness of BCBA's, whether they are employed by the schools or are contracted out. This may be a vein of questioning for future studies.

Scope of work in schools

The survey suggests the majority of behaviors that BCBA's target for change are Tier 1 or Tier 2 problem behavior such as noncompliance, disruptions, and academic struggles. While aggression was another frequently reported behavior of focus for BCBA's in school settings, the other behaviors may not require as much intensive support. While BCBA's can successfully directly intervene on Tier 1 and Tier 2 problem behavior, their time might be better spent providing training and support to public school educators in basic Tier 1 and Tier 2 behavior support (i.e., basic classroom management and Tier 2 interventions). This may allow more time for BCBA's to address Tier 3 behavior concerns that require more specialized and intensive support.

More than half of participants indicated in the survey they have a caseload greater than 21 students, with 25.5% indicating they have more than 41 students on their caseload. According the BACB Code of Ethics (2020), in section 3.03, “Behavior analysts only accept clients whose requested services are within their identified scope of competence and available resources (e.g., time and capacity for case supervision, staffing)” While the BACB does not define an exact limit to the number of students on one caseload, the high caseload numbers reported by participants in this study is concerning. While BCBA’s in private settings might have the option to turn down potential clients, public schools have to provide services to all qualified students no matter their staffing allocations or monetary restrictions. More studies need to be conducted to determine if the size of the caseload affects the ability of the BCBA to perform their duties and if there should be recommended caseload parameters for BCBA’s working in the public-school setting.

Historically, BCBA’s have worked primarily with students on the autism spectrum (BACB, 2020), but according to this survey, BCBA’s working in schools work with a variety of disabilities. While autism was the most prevalent disability (16.17%) indicated in the survey, developmental delay, emotional/behavioral, intellectual disabilities, attention-deficit hyperactivity disorder (ADHD) and learning disabilities were all within a 5% difference, indicating they are also populations highly impacted by behavioral concerns. The BACB also stipulates BCBA’s can only take clientele that are in their scope of competence. As indicated above, BCBA’s in schools have to provide services for all qualified students and may have limited exposure to certain disabilities or behavioral concerns. Further research should be done on how BCBA’s in schools can widen their

scope of competency to better serve all students in the public-school systems and how school systems can be better equipped to hire BCBA's with varying areas of expertise.

Ethics and Supervision

Broadhead and Higbee (2012), indicate the importance of ethical supervision for individuals who are in the process of becoming BCBA's, and continued support in the varied settings in which they work. The BACB requires up to 2,000 hours of supervision before an individual can become a Board Certified Behavior Analyst (BACB, 2021). While Broadhead and Higbee's (2012) and the BACB's requirements outline the need for supervision, the survey results highlight a possible concern in how BCBA's working in education received their training. Only 40.71% of survey participants received more than 50% of their supervision in public-school settings. This means over 50% of participants received most of their supervision hours outside of a public-school setting. While most participants did not receive supervision in a public-school setting, 56.07% of participants indicated most, if not all, of their supervisors were knowledgeable about working in public schools. 17 percent of participants indicated that none of their supervisors knew about working within public schools. Given that the employment trends indicate that more BCBA's are being hired in schools, this could lead to some BCBA's not being prepared for the unique challenges faced by school personnel, especially those related to ethical concerns.

Another ethical concern this survey highlighted is how many employers of BCBA's do not know the ethical requirements BCBA's are required to follow. More than 48% of participants indicated their employers were not aware or did not know if their

employers were aware of the ethical requirements of the BACB. Less than half of participants surveyed indicated they were the individual that made sure their employers were aware of the code. These data are concerning given that is the responsibility of the BCBA to ensure their employer is aware of the ethical code. If employers are unaware of ethical boundaries and requirements, it may lead to them expecting BCBA's to practice outside of their scope of expertise or violate ethical standards. This may lead to BCBA's being faced with a potential ethical dilemma that could have been avoided if their employers were aware of the code. 80.95 percent of participants indicated they have been faced with situations that could be in conflict with the ethical requirements of the BACB, indicating that BCBA's are commonly confronted with potential ethical dilemmas while working in the public-school system.

Limitations

While this survey had more participants than expected, the sample size is still relatively small compared to how many BCBA's work in public schools. According to the BACB (2016), approximately 4,235 BCBA's work in education, and this sample represents 7% of that pool of potential participants. There was also an uneven distribution among the participants' locations. There were 14 states and territories that had no survey participants and 40 states with very few participants. The study's participants mainly came from California, Massachusetts, New Jersey, Pennsylvania, and Utah. While Utah is the state the survey was originated in, the other states are densely populated states.

This survey was also completed by mostly cis women. While 36% of participants preferred not to provide their gender, less than 1% identified themselves as nonbinary or

transgender. Cis gendered men were also not proportionally represented in the survey results with only 6.79% of participants identifying as cis gendered male.

The racial and ethnic group most represented in this survey was European American White, with over 80% of participants identifying in this manner. Minoritized populations - such as Hispanic or Latina/o/x, Asian, and African American/Black - were less represented, with participants being less than 10% of the total number of respondents. Middle Eastern and North African, Native American, and Pacific Islander each had less than 1% of participants identify themselves as a part of these racial or ethnic groups, while Native Hawaiian and Alaska Native had 0% representation in this survey.

Future Directions

This research can better help supervisors train future BCBA's to be prepared for the unique challenges BCBA's face in the public-school setting by providing more school-focused supervision. Because more BCBA's are working in a school setting, universities could pair potential BCBA's with supervisors with school experience and supervision within a school setting. Further research on the amount of public-school specific supervision and a BCBA's ability to navigate ethical concerns would be interesting to investigate. Further research could also explore the extent to which if school-based supervision and specific school-based supervision experiences (e.g., those who had previously been a teacher) are beneficial for those working in a school as a BCBA.

Future research might collect similar survey data from a wider range of states and territories in the United States. These data could create a more in-depth view of ethical challenges BCBA's face in public-school settings. Additionally, future research might focus solely on rural schools and how BCBA's work within those communities. There are many unique ethical situations that may arise in a rural community since many people in such communities have dual relationships with people, such as work, community activities, and school association. More research needs to be done to help BCBA's navigate these situations that are specific to rural areas.

It is important to note that this survey does not include perspectives from minoritized and under-represented groups, such as people of color and members of the LGBTQA+ community. Future research should examine the perspectives of these groups and their experiences working as a BCBA in schools. It is important to ensure these groups are represented and that there is a forum or method to ensure their voices and concerns are heard.

Conclusion

This study surveyed over 300 BCBA's working in public schools. A majority of these individuals face ethical situations that may violate some part of the BACB's code of ethics. This survey indicated that two potential areas of concern that may impact the high rate of reported ethical dilemmas that BCBA's face may be due to the lack of supervision offered in public-school settings or employers not being aware of the requirements BCBA's have to follow. Schools have unique cultures and guidelines and current and future BCBA's need help to navigate the requirements of their employer while also

upholding the ethical codes of the BACB. Given the importance of ensuring adequate services in school settings, it may be relevant to continue seeking answers to questions in these complex yet critically important areas.

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APENDICES

Appendix A

(adapted from informed consent document)

Dear _____,

You are invited to participate in a research study conducted by Danielle Lyons, a graduate student in the Department of Special Education and Rehabilitation at Utah State University. The purpose of this research is to gain insight into BCBA's working in public schools.

This form includes detailed information on the research to help you decide whether to participate in this research. Please read it carefully and ask any questions you have before you agree to participate.

Procedures

Your participation will involve responding to questions on an online survey. The survey will only last 10-20 minutes long. No personal or self-identifying information will be collected before, during, or after the survey.

Risks

This is a minimal risk research study. That means that the risks of participating are no more likely or serious than those you encounter in everyday activities. The foreseeable risks or discomforts include loss of time to answer questions, or discomfort in answering any of the questions. In order to minimize those risks and discomforts, the survey can be taken at any time during the 2 week availability of the survey. The survey may also be completed in multiple sittings. You can also choose to not complete the survey at any time and your results will not be included in the study. We expect that you will have a good experience during this study, but if you have a bad research-related experience or are injured in any way during your participation, please contact the principal investigator of this study right away at sarah.pinkelman@usu.edu.

Benefits

Participation in this study may directly benefit you by encouraging personal reflection about your role in public schools as a certified BCBA. More broadly, this study will help the researchers learn more about BCBA's in public schools and areas of further researched need in this area.

Confidentiality

The researchers will make every effort to ensure that the information you provide as part of this study remains confidential. Your identity will not be revealed in any publications, presentations, or reports resulting from this research study.

No identifiable information will be collected during the survey. Email addresses will only be used to send an invitation and follow up email. Once the follow up email has been sent, the email addresses will not be kept. Any self-identifiable information

received in the open-ended questions will be deleted and not included in the final results.

It is unlikely, but possible, that others (Utah State University, or state or federal officials) may require us to share the information you give us from the study to ensure that the research was conducted safely and appropriately. We will only share your information if law or policy requires us to do so.

Voluntary Participation, Withdrawal, and Costs

Your participation in this research is completely voluntary. If you agree to participate now and change your mind later, you may withdraw by choosing not to complete the survey. Any uncompleted surveys will not be included in the final results. Your participation may require that you incur additional costs, including any costs associated with choosing to participate using a personal computer device.

Compensation

There will be no compensation available for this study.

Findings & Future Participation

Because the survey is anonymous, if you would like to know the results of the study, you may contact Danielle Lyons or Sarah Pinkelman directly. They would be willing to share any final results and findings.

IRB Review

The Institutional Review Board (IRB) for the protection of human research participants at Utah State University has reviewed and approved this study. If you have questions about the research study itself, please contact Danielle Lyons at danielle.lyons@aggiemail.usu.edu or Sarah Pinkelman at sarah.pinkelman@usu.edu. If you have questions about your rights or would simply like to speak with someone other than the research team about questions or concerns, please contact the IRB Director at (435) 797-0567 or irb@usu.edu.

Danielle Lyons
USU Graduate Student
danielle.lyons@aggiemail.usu.edu

Sarah Pinkelman
Principal Investigator
sarah.pinkelman@usu.edu

Informed Consent

By clicking 'yes' below, you agree to participate in this study. You indicate that you understand the risks and benefits of participation, and that you know what you will be asked to do. You also agree that you have asked any questions you might have, and are

clear on how to stop your participation in the study if you choose to do so. Please be sure to retain a copy of this form for your records.

Appendix B
Survey Questions

1. Do you currently work as a BCBA in public schools (including public charter schools)?
 - a. Yes (Q#2)
 - b. No (Q#3)
2. What is your job title? (text box)
3. Have you worked as a BCBA in public schools in the past three years (including public charter schools)?
 - a. Yes (Q#3)
 - b. No (end of survey)
4. How long have you worked in public schools (including public charter schools)?
 - a. 0-2 years
 - b. 3-5 years
 - c. 6-10 years
 - d. 11 or more years
5. Do you work for a charter school?
 - a. Yes
 - b. No
6. In what state do you work?
 - a. Select from list of states/territories
7. What is your district urbanicity?
 - a. Urbanized Area (50,000 or more people)
 - b. Urban Clusters (at least 2,500 and less than 50,000 people)
 - c. Rural (all areas not included in within an urban area)
8. Are you employed by school district/local education agency (LEA) or do you do contract work?
 - a. Employed by school district
 - b. Independent contracting
 - c. Employed by external agency that partners with public schools
9. What grade levels do you serve? (select all that apply)
 - a. Pre-K
 - b. Elementary
 - c. Middle school
 - d. High school

- e. Post high school
10. What populations do you serve? (check all that apply, rank order)
- a. General education
 - b. Learning disabilities
 - c. Autism
 - d. Intellectual disabilities
 - e. Emotionally disturbed
 - f. OHI
 - g. Other: Text Box
11. For how many students do you currently provide services or consultation?
- a. 1-20
 - b. 21-40
 - c. 41-60
 - d. 61-80
 - e. 81-100
 - f. 101>
12. How much of your supervision hours did you receive in public school settings?
- a. 0-10%
 - b. 11-30%
 - c. 31-52%
 - d. 51-75%
 - e. More than 75%
13. Were your BCBA supervisor(s) knowledgeable about working in public schools?
- a. Yes, all of my supervisors were knowledgeable about working in public schools.
 - b. Most of my supervisors were knowledgeable about working in public schools.
 - c. Some of my supervisors were knowledgeable about working in public schools.
 - d. None of my supervisors were knowledgeable about working in public schools.
14. How much of your time is allocated to providing behavioral services that meet the guidelines of behavior analytic work defined by the BACB?
“Behavior-analytic services are those that are explicitly based on principles and procedures of behavior analysis (i.e., the science of behavior) and are designed to change behavior in socially important ways. These services include, but are not limited to, treatment, assessment, training, consultation, managing and supervising others, teaching, and delivering continuing education” (p. 23 of BACB Professional and Ethical Compliance Code for Behavior Analysts).
- a. 0-25%
 - b. 26-50%

- c. 51-75%
- d. 76-100%

15. What other roles do you fill? (check all that apply)

- a. Administrative duties
- b. Educational/psychological assessment
- c. BCBA supervision
- d. RBT supervision
- e. Teaching (classroom teacher)
- f. Speech-language pathologist
- g. Other (text box)

16. Part 1: Please select the top 5 areas you allocate your time across the following activities.

- a. Working directly with students
- b. Training, coaching, supervising, problem-solving with classroom staff
- c. Supporting academic interventions
- d. Communicating with administrators
- e. Didactic, large group training
- f. Attending meetings (e.g., IEP meetings, department meetings, etc.)
- g. Assessment (directly conducting assessments)
- h. Assessment (plan and supervise assessment activities)
- i. Report/IEP writing
- j. Data analysis
- k. Writing behavior intervention plans
- l. Other paperwork
- m. Traveling between sites
- n. Searching for and reading professional and research literature
- o. Responding to crisis situations/crisis management (phone calls or in-person)

Part 2: Of the top 5 areas you chose, please assign a percentage of time you engage in these activities. Also indicate, with the other box, the percentage of time you engage in other assigned duties.

17. What types of behavior problems do you provide service for? (check all that apply, rank order)

- a. Disruption
- b. Non-compliance
- c. Physical aggression
- d. Verbal aggression
- e. Self-injury
- f. Academic difficulties
- g. Feeding difficulties
- h. Gang-related activities
- i. Weapon on campus
- j. Drug activity

k. Other: Text Box

18. List the settings in which you provide services (check all that apply)
 - a. General education settings
 - b. Special education settings
 - c. Pull out/1:1 settings
 - d. Non-classroom settings (playground, cafeteria, bus, etc.)
19. What do you wish your current or most recent supervisor know about being an BCBA that would make your job easier or less stressful? (open response)
20. Is your job supervisor aware of the BACB Ethics Code for Behavior Analysts?
 - a. Yes
 - b. No
 - c. I don't know
21. In your role as a BCBA in public schools, do you encounter situations that could potentially be in conflict with the BACB Ethics Code for Behavior Analysts
 - a. Yes (Q#20)
 - b. No (Q#21)
22. If yes, how do you resolve these conflicts?
 - a. Open text box
23. What else would you like us to know about BCBAs working in schools?

Appendix C

Invitation Email

Dear _____ ,

My name is Danielle Lyons and I'm a graduate student of Special Education at Utah State University. I'm writing to see if you might be interested in participating in a study that I'm conducting. The purpose of the study is to learn about how BCBA's work in public schools.

Your participation would involve answering questions during an online survey lasting approximately 10-15 min. All responses on the survey will be kept secure and confidential.

You are eligible to participate if you are currently employed in a public school district (including charter schools) in the U.S. as a BCBA or have worked as a BCBA in public schools in the last 3 years.

This study has been approved by the Institutional Review Board (IRB) for the protection of human research participants at USU (protocol # _____).

If you are interested in participating, please follow this link to a survey: *****. Here you will find more detailed information including an opportunity to provide informed consent and then complete the survey.

Thank you for considering this request! Please don't hesitate to contact me with any questions you might have.

Warm regards,

Danielle Lyons
USU Graduate Student
danielle.lyons@aggiemail.usu.edu

Sarah Pinkelman
Principal Investigator
sarah.pinkelman@usu.edu

Appendix D

Reminder Email

Dear _____,

You received an email two week ago inviting you to participate in a survey about how BCBA's work in the public schools. If you would still like to complete this survey please click on the link below. It will direct you to a written consent form and once you have given your consent, you can complete the survey. The survey should only take 10-15 minutes to complete and all answers are confidential.

Thanks again for your willingness to participate in this study and please don't hesitate to write or call with any questions or concerns.

Warm regards,

Danielle Lyons

Appendix E

Social Media Post

My name is Danielle Lyons and I'm a graduate student of Special Education at Utah State University. I'm posting about a study that I'm conducting. The purpose of the study is to learn about how BCBA's work in public schools.

Your participation would involve answering questions during an online survey lasting approximately 10-15 min. All responses on the survey will be kept secure and confidential.

You are eligible to participate if you are currently employed in a public school district (including charter schools) in the U.S. as a BCBA or have worked as a BCBA in public schools in the last 3 years.

This study has been approved by the Institutional Review Board (IRB) for the protection of human research participants at USU (protocol # _____).

If you are interested in participating, please follow this link to a survey: ****. Here you will find more detailed information including an opportunity to provide informed consent and then complete the survey.

Thank you for considering this request! Please don't hesitate to contact me with any questions you might have.

Danielle Lyons
USU Graduate Student
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