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Knowledge of Some Evidence-Based Practices Utilized for Managing Behavioral Problems in Students with Disabilities and Barriers to Implementation: Educators' Perspectives

Hajar Almutlaq*
Majmaah University, Riyadh, Saudi Arabia

Abstract. Evidence-based practices, including applied behavior analysis, have been used to manage behavioral problems among students with disabilities. Educators have found a lack of utilizing empirical practices in the classroom. The purpose of this study is to understand educators' perspectives on practices used to manage behavioral problems among students with disabilities and to determine barriers that prevent them from utilizing evidence-based practices in the classroom. This study examined the most effective learning opportunities rated by participants, educators who were voluntarily recruited from Midwestern U.S. state elementary public schools to complete an online survey about practices used to manage behavioral problems among students with disabilities. One hundred and seventeen educators (85 special education, 7 general education teachers, and 25 other educators) completed a questionnaire using Likert-type scales to describe their experience dealing with students with disabilities who have exhibited behavioral problems. The results indicated that there was an association between educators' specialties and their experience of the intensity of behavioral problems among students with disabilities. The results showed a high percentage of educators rated punishment as the most effective behavior management strategy among a variety of behavioral management and Applied Behavior Analysis strategies. The results showed that educators received more professional training during their in-service as compared to their pre-service period. Educators reported that shortages of supplies and support were the barriers that most prevented them from utilizing evidence-based practices in the classroom. This study highlighted the most effective training methods preferred by educators, and implications and future directions are provided.

Keywords: evidence-based practice; applied behavior analysis; professional development; student behavioral problems; pre- and in-service teachers

* Corresponding author: *Hajar Almutlaq, H.almutlaq@mu.edu.sa*

1. Introduction

The number of students with disabilities has increased dramatically in the last decades according to the National Center for Education Statistics [NCES] (2022a). In the United States, educators reported that disruptions including non-compliance, verbal and physical aggression, out of seat, and disrespecting teachers have been the most common behavioral problems exhibited by students in the classrooms (Education Advisory Board [EAB], 2019). Another report has been released by NCES (2022b) displaying the percentage of students who attacked their public-school educators; six percent of public-school educators confirmed that they were attacked by a student from their school, and ten percent reported that a student threatened them with injuries. About half of public-school educators face a variety of behavioral problems displayed by their students on a daily basis (Sutherland et al., 2019; Westling, 2010). These behavioral problems may include, but are not limited to, aggression, yelling, crying, not complying with teacher instructions, and off-seat and off-task behaviors (Almutlaq, 2021; Amstad& Müller, 2020; Westling, 2010). A high percentage of behavioral problems were exhibited by students with disabilities due to a number of reasons, including inability to determine the acceptable social behavior, lack of appropriate communication skills such as expressing their needs, and lack of self-management skills such as controlling their temper tantrums (Amstad& Müller, 2020; Cooper et al., 2019; Crone et al., 2015).

A report published by NCES about the discipline problems in public schools (2022c) showed that approximately 50% of educators acknowledged that students' behavioral problems negatively affect the classroom environment, and educators often spent more time trying to cope with such problems. Additionally, educators pointed out that students displaying behavioral problems in the classroom conflicted with their work during their attempt to manage the situation. Approximately 40% of educators spend more time dealing with student behavioral problems than they do teaching, according to Public Agenda [PA] (2004). When students engage in behavioral problems in the classroom, this leads to a disruption in the learning process by negatively impacting the students themselves, as well as their teachers and peers. Displaying behavioral problems in the classroom forces teachers to take action to manage the behaviors; in addition, actions presented to intervene in the problem behaviors of one student can drive their peers to pay close attention to the situation. This eventually leads to a disruption in the learning process. Behavioral problems place great stress on teachers when they are trying to reduce these behaviors (McLean et al., 2019).

Students with Disabilities

The reauthorization of the Individuals with Disabilities Education Act [IDEA] (2004) and the No Child Left Behind Act [NCLB] (2002) required highly qualified teachers to meet students' different individual needs; thus, there is an urgent need for continuous teacher training and professional development. Inadequately prepared teachers could fail to cope with behavioral problems among students with disabilities (Alotaibi, 2015; Haimour & Obaidat, 2013; Westling, 2010). Student teachers (pre-service teachers) during their education and before undertaking any official teaching, as well as in-service teachers who are currently providing learning, are both in need of sufficient training to prepare them in

facing the variety of behavioral problems among students with disabilities. Educators have been encouraged to utilize Evidence-Based Practices (EBPs), such as teaching and behavioral modification methods, over the decades.

Evidence-Based Practices

There is a wide range of Evidence-Based Practices (EBPs), and these practices have been tested in many studies to prove their effectiveness in modifying behavioral problems or improving learning outcomes. Using EBPs increases the chance of implementing effective behavioral interventions or teaching methods, because the selection of a specific practice should be based upon backup data, and a rigorous process should be put into place (Pring & Thomas, 2004; Scheeler et al., 2016; Stahmer et al., 2015). Some of the EBPs have been proven to be effective in managing behavioral problems among students, such as differential reinforcement, response cost, the token economy, and punishment and error correction (Simonsen et al., 2008). In fact, these EBP practices and others used to manage behavior problems, such as shaping, modeling, positive and negative reinforcement, and prompting, are mainly derived from Applied Behavior Analysis (ABA) principles (Cooper et al., 2019).

Applied Behavior Analysis

Applied behavior analysis (ABA) is defined as

> "*The science in which tactics derived from the principles of behavior are applied to improve socially significant behavior and experimentation is used to identify the variables responsible for the improvement in behavior.*" (Cooper et al., 2019, p.20).

There are many positive behavior management strategies derived from ABA principles and used to enhance human behavior. ABA strategies are believed to be the most effective EBP practices in the field of education (Cooper et al., 2019; Wolf, 1978). ABA supports an individual's behavior in six different ways, including: (1) teaching new skills, (2) increasing appropriate behaviors, (3) maintaining behaviors, (4) changing or replacing responses, (5) decreasing inappropriate behaviors, (6) generalizing or transferring behavior from one situation to another (Cooper et al., 2019). ABA is one of the most effective strategies used to manage students with disabilities and behavioral problems, and has become used in school-wide strategies all over the world (Behavior Analyst Certification Board [BCBA], 2014). The importance of utilizing ABA strategies has led to several studies that explore teachers' knowledge and their experience in utilizing ABA strategies in the classroom (Reeves, 2017). Another study has investigated the implementation barriers and preferred future training methods among special education teachers (Alotaibi, 2015). Teachers rated the observing and mentoring teachers implementing the exact same behavioral strategy as the most effective learning opportunity that they could receive in a training (Alotaibi, 2015). On the other hand, teachers were found to have a lack of knowledge and utilization of ABA strategies (Alotaibi, 2015; Reeves, 2017), and lacked support and supervision to implement ABA and other EBPs in the classroom (Alotaibi, 2015; Khaleel, 2019).

1.2. Significance of the study

After reviewing the previous studies, it is critical to understand to what extent educators use EBP and ABA strategies as well as the barriers to its implementation (Alotaibi, 2015; Reeves, 2017; Westling, 2010). Few studies have examined the professional training received during the pre-service period and compared to this the in-service period (Khaleel, 2019; Kodak et al., 2018; Schloss & Smith, 1998). Knowing the professional training that teachers have received could help to focus on the quantity and quality of designing a future training program for both pre-service and in-service teachers. In addition, there is a need to design a suitable training program for educators in Midwestern U.S. state public schools by identifying their knowledge of EBPs implemented to manage students with disabilities' behavioral problems, the received training programs during their pre- and in-service periods, the barriers, and the preferred learning methods.

This study aims to investigate the association between educators' specialties and their experience of the intensity of students' problem behaviors. This study rates the educators' perspectives of basic behavior management strategies, which are EBPs, including ABA. The sufficiency of the training that pre-and in-service educators receive to deal with students with behavioral problems is highlighted in this study. This study identifies the possible barriers faced by educators that prevent them from fully utilizing EBP practices, including ABA. In addition, this study aims to effectively provide practical suggestions from the educators' perspectives about their preferences for future learning opportunities, and to provide future suggestions to support the skills needed to manage students' behaviors. This study contributes to understand the educators' perspectives, in order to assist building a professional training program in the future that fits both their abilities and their needs by considering the reported barriers and then by employing the most effective learning methods during training. Therefore, this study examines the following questions:

1. Is there an association between the participants' specialties and their experience of intense student behavioral problems?
2. What are the educators' perspectives on utilizing basic behavior management strategies, including applied behavior analysis?
3. Do pre-and in-service educators receive appropriate training to deal with their students with behavioral problems?
4. What are the barriers that educators face that are relevant to managing their students with behavioral problems?
5. What are some future learning opportunities that can be effectively used, from the educators' perspectives?

2. Methodology

2.1. Research Design

To collect the needed data, this study used a questionnaire that employed a web-based Qualtrics survey method to target participants. The questionnaire partially adopted the questionnaires from previous studies by Alotaibi (2015) and Reeves (2017) and were modified to suit the purpose of this study in order to gain more information about the support needed by the educators in a Midwestern state in the United States regarding behavior management strategies for their students with disabilities.

2.2. Sample and Population

Participants in the study include 85 teachers in special education, seven general education teachers, six principals and administrators, and 19 specialists in other related services (such as school psychologists and special education directors). The educators were recruited from different elementary public schools in a Midwestern state in the United States and were constituted using convenience sampling to represent a useful source of data in this exploratory research (Holton & Burnett, 2005). The study gathered information about the support needed by a certain population and generalized the findings. All of the participants were volunteers who were entered into a draw to get a monetary reward for completing the questionnaire. More information about participants is provided in Tables 1 and 2. (Table 1 displays gender, ethnicity, professional position, years of experience, education level, school district, school location; Table 2 shows type of classroom, number of students exhibiting behavioral problems, and number of teachers in the classroom.)

Table 1: Demographic information of the participants (n = 117)

Variables	N	Percentage
Gender		
Female	109	93.2
Male	8	6.8
Ethnicity/Race		
African American	6	5.1
Hispanic/Latino	2	1.7
Native American	9	7.7
White	100	85.5
Professional Position		
Gen. Ed. Teacher	7	5.2
Special Ed. Specialists	85	73.3
Related services specialists	19	16.2
Admin/ Principal	6	5.2
Years of Experience		
0-1 years	2	1.7
2-3	8	6.8
4-5	3	2.6
More than 5 years	104	88.9
Academic Degree		
Doctor	2	1.7
Master	68	58.1
Bachelor	47	40.2
School District		
Urban	40	34.5
Suburban	35	30.2
Rural	42	35.3

Location of School		
Central	47	40.5
East	12	10.4
West	14	11.3
North	12	10.4
South	32	27.4

Table 2. Summary of educational units, number of students and teachers in classroom

Variables	N	Percentage
Type of the Classroom		
Gen. Ed. Classroom	13	11.1
Self-Contained	15	12.8
Autism Class	3	2.6
Resource Room	47	40.2
Severe Profound	2	1.7
Other	37	31.6
Number of Students Exhibiting Behavioral Problems Per Class		
1-3	33	28.7
4-7	40	34.8
8-9	17	14.8
More than 10	27	21.7
Number of Teachers		
1	49	41.8
2	8	6.8
3	6	5.1
4	4	3.4
6 and more	33	28.2

2.3. Research instruments

The questionnaire employed in this study was partially adopted from studies by Alotaibi (2015) and Reeves (2017), in order to meet the purpose of this study by allowing participants to report their perspectives on students' behavior management strategies, including using some ABA. In addition, this questionnaire provided participants with an opportunity to share their preferred practical suggestions and future learning opportunities to support the skills needed to manage students' behaviors. A questionnaire entitled "Educators' Knowledge in a Midwestern State", was initially created using Qualtrics online software and allowed participants to report their perceptions, through Likert-type ratings, on four dimensions related to the educators' perspectives of behavioral management strategies, evaluating basic behavior management strategies including ABA, barriers to its implementation, and suggestions for future learning opportunities. Some of the questionnaire items were illustrated in Table 3.

Table 3. Information about some sections in the questionnaire requiring participant responses

Dimension Tittle	No. of Items	Examples or Description of Items	Response Type
Educators' perspective of behavioral management strategies	Section 2	It is important to collect data on inappropriate behaviors	5-point scale ranged from: (1. strongly disagree - 5. strongly agree)
	Section 2 Item No. 5	Provide class-wide rewards when the class as a whole demonstrates good behavior (e.g., extra recess time, pizza party)	5-point scale ranged from: (1. always - 5. never)
Barriers to implement behavioral management strategies	Section 3 Item No. 3	Feedback/guidance for using the behavior strategy	3-point scale ranges from: (1. never a barrier to my use of behavior - 3. very often a barrier to my use of a behavior strategy)
Suggestions for future learning opportunities	Section 4 Item No. 7	Watching and reflecting on videos that show the implementation of behavior strategies.	4-point scale ranged from: (1. I never experienced this learning opportunity in my teacher training or any other training - 4. I experienced the learning opportunity and it was very effective)

Information about sections of the questionnaire requiring participant responses. The questionnaire was divided into four sections:

1) Section 1: Demographic Information

In this section, questions were asked about gender, ethnicity, position, years of experience, academic degree obtained, rating the severity of students' problem behaviors that the respondents have encountered, and educators' formal training in managing students' problem behaviors and ABA.

2) Section 2: Basic Behavior Management Strategies Including Applied Behavior Analysis

In this section, there were three subsections including behavior management strategies, applied behavior analysis practices, and the effectiveness of a variety of behavior management strategies and ABA practices. The respondents answered the questions regarding their opinions toward their knowledge upon using basic behavior management strategies. The scales were ranked from strongly agree, agree, neither agree nor disagree, and disagree, to strongly disagree.

3) Section 3: Possible Barriers to the Use of Behavior Management Strategies

In this section, possible barriers to the use of behavior management strategies that the respondents faced were asked, and the rating scale was never, rarely, occasionally, often, and very often.
4) Section: Learning Opportunities
In this section, the respondents were asked to evaluate the effectiveness of learning opportunities and rated them as never experienced, experienced but it was not effective, it was somewhat effective, or it was very effective.

2.3.1 The Validity of The Questionnaire
Alotaibi (2015) and Reeves (2017) reported that their questionnaires were created based on a review of relevant literature in the evidence-based practices. Alotaibi (2015) reviewed and revised the questionnaire with faculty members in the field of special education, while Reeves (2017) used a modified questionnaire found in previous studies (Martin & Baldwin, 1993; Martin et al., 2007; McCormick, 2011; Musgrove,1974; Randazzo, 2011; The Incredible Years, 2012). Thus, the modified questionnaires used in this study were developed and validated in previous studies (Alotaibi, 2015; Reeves, 2017).

2.4 Content validity
The draft questionnaire was created based on a review of the relevant literature (Alotaibi, 2015; Martin & Baldwin, 1993; Martin et al., 2007; McCormick, 2011; Musgrove, 1974; Randazzo, 2011; Reeves, 2017; The Incredible Years, 2012). The questionnaire was sent to collaborators, parties, and a faculty member in the special education department who were experts in the field of behavior management strategies and applied behavior analysis was used to review the survey's items. The reviewers provided a few recommendations regarding the survey's duration and terminology, and the author revised the survey's items based on their comments.

2.5 Procedures
The recruitment process for participants began by using convenience sampling. Cooperation between the author and other professional agencies was established to deliver the questionnaire to potential participants who met the inclusion criteria and who volunteered to respond to the survey items. The survey's link was sent to the Director of Special Education Teachers in a Midwestern state, and the survey's link was sent to an Educators List found in the Special Education Support Center in the authors' university. Because of the length of the questionnaire, educators who volunteered to complete it were told that they would be entered into a draw, and that five of them would be paid $10 for the time required to complete the survey. Educators who were willing to volunteer were asked to sign a consent form on the first page in order to proceed to the following items of the survey. The participants were not asked to provide names or any other personal information, in order to protect their personal privacy. All of the questionnaires were distributed and collected during September through October 2021.

2.6 Data Analysis
Data were exported from the online Qualtrics survey software into SPSS (version 21) for statistical analysis. Qualtrics and SPSS software were used to descriptively

analyze the data. Incomplete responses and information from respondents who declined to participate in the study were excluded.

3. Results

3.1.1 Demographic Information of The Participating Educators

Tables 1 and 2 present the demographic characteristics of the participants. The majority of the participants (93%) were female and 85% were white. Most of the participants (73%) were special education teachers, 89% with experience of over five years, and 58% of the participants had earned a master degree. Approximately 47% of the educational units were resource rooms, with about 35% reporting an estimate of 4 to 7 students per classroom.

3.1.2 Participants' Specialty and The Intensity of Student Behavior Problems

A chi-square test was performed to examine the relationship between the specialties of the educators and the intensity of the students' problem behaviors experienced by those educators. The relation between these variables was significant, at 235.148. The p-value is < 0.00001 and the result is significant at $p < .05$. There was significant association between educators' specialties and their experience of rating their students' behavioral problems intensity. More details can be found in Table 4 and Figure 1.

Table 4. Percentage of participants' specialties rating the intensity of student behavior problems

Intensity of problem behavior	Special education teachers (n = 85)	General education teachers (n =7)	Related services teams (n =6)	Psychol-gists or directors (n =19)	Total
Severe	46%	43%	8%	3%	100%
Moderate	40%	50%	86%	22%	198%
Mild	14%	7%	6%	75%	102%
Total	100%	100%	100%	100%	400%

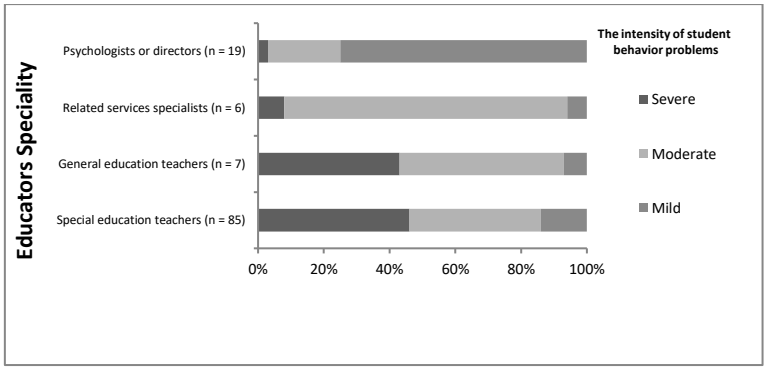

Figure 1. Educators' specialty and the intensity of student behavior problems

3.1.3 Participants' Perspective of Basic Behavior Management Strategies Including Some of Applied Behavior Analysis Strategies

Table 5 shows the percentage of educators who rated the items regarding the basic behavior management strategies including applied behavior analysis as strongly

agreed or agree. As can be seen in Table 5, the majority (96%) of the educators indicated that they considered punishment to be an effective behavioral management strategy, with negative punishment at 91%. It is noteworthy that educators rated making intervention plans and reinforcing specific positive behavior as strongly agreed or agreed by a majority of 87%. A range of 40% to 48% of the participants rated the items regarding behavior management strategies, such as differential reinforcement, ignoring, and interdependent group rewards, as strongly agreed or agree. The percentage of educators who reported strongly agreed or agreed about the basic behavior management strategies including applied behavior analysis in specific strategies such as positive reinforcement and negative punishment (time-out) was low, at 4% to 6%.

Table 5. Percentage of participants who strongly agreed or agreed with items from different sections of the questionnaire

Specific items	Educators (*n* = 117)
Making intervention plans for repeated behavioral problems	87
Collecting data on inappropriate behaviors	83
Understanding the underlying cause of a student's behavioral problem	75
Positive Reinforcement	4
Reinforcing specific positive behavior	87
Reinforcing students who are following the expected rules in the classroom	11
Differential reinforcement	48
Differential reinforcement of alternative behavior	76
Identifying preferred rewords to a student	85
Token Economy	29
Ignoring student's behavioral problem when it is possible	40
Punishment (as the most effective way to change a behavior)	96
Negative punishment	91
Negative punishment (time-out)	6
Interdependent group rewards	41

Note: Items from questionnaire are paraphrased.

3.1.4 Pre-and In- Service Teachers Training

Table 6 shows that the majority of educators (63%) had taken behavior management courses prior to graduation from school. Pre-service teachers who had not received training in appropriate behavior management strategies such as ABA were at 61%, compared to those in their in-service period at 56%.

Table 6. Summary of responses on the professional development section by pre-and in-service teachers

Professional Development	Yes	No
Behavior Management Course	63.2%	36.8%
Pre-service training in ABA	39.3%	60.7%
In-service training in ABA	43.6%	56.4%

3.1.5 Barriers for In-Service Educators

Table 7 shows that the most frequent barrier that teachers experience (18%) was the supplies needed to use a behavior management strategy. The second most significant barrier that teachers experience was support from colleagues (15%) to use a behavior management strategy, followed by support from administrators (14%). Colleagues' experimentation found to be ineffective was considered as a barrier by 12%. On the average, teachers reported that all the barriers somehow affected teacher strategies to cope with student problem behavior or to apply behavior management strategies.

Table 7. Frequencies of barriers faced by educators

Items		Options		
		Never	Sometimes	Very often
1.	My knowledge or skill regarding the behavior strategy	41 (35.3%)	69 (59.5%)	7 (5.2%)
2.	Support from administration for using the behavior strategy	55 (47.0%)	45 (38.5%)	17 (14.5%)
3.	Feedback/guidance for using the behavior strategy	49 (41.9%)	56 (47.9%)	12 (10.3%)
4.	Supplies for using the behavior strategy	28 (24.1%)	67 (57.8%)	21 (18.1%)
5.	Support from colleagues to use the behavior strategy	36 (31.3%)	61 (53.0)	18 (15.7%)
6.	My general approach does not help me	63 (53.8%)	52 (44.4%)	2 (1.7%)
7.	Takes too much time and effort to use the behavior strategy	57 (48.7%)	52 (44.4%)	8 (6.8%)
8.	Perception that the behavior strategy is not effective	49 (42.2%)	59 (50.9%)	8 (6.9%)
9.	Other teachers have tried the behavior strategy and they thought it was ineffective	53 (45.3%)	49 (41.9%0	15 (12.8%)
10.	The behavior strategy would not help me achieve my work goals	60 (51.7%)	51 (44.0%)	5 (4.3%)
11.	The behavior strategy was not appropriate for the students in my class(es) and their specific problems	42 (35.9%)	63 (53.8%)	12 (10.3%)
12.	Other factors that influence your use of the behavior strategies described in this survey (explain and rate those factors)	41 (39.0%)	61 (58.1%)	3 (2.9%)

3.1.6 Future Learning Opportunities

Almost 47% teachers reported that observing mentors, or supervisors dealing with behavior problems using behavior strategies offered the most effective learning opportunities. The second greatest learning opportunity (40%) was receiving feedback in implementing behavior strategies. Two learning opportunities, completing a portfolio related to behavior (5%) and using other instructional techniques (5%), were found to be the least learning effective opportunities, as shown on Table 8.

Table 8. Frequencies of learning opportunities rated by educators

Items		Options*			
		1	2	3	4
1	Reviewing case studies of students with behavioral problems	10 (8.8%)	13 (11.5%)	54 (47.8%)	36 (31.9%)
2	Listening to lectures about behavior strategies	11 (9.7%)	21 (18.6%)	58 (51.3%)	23 (20.4%)
3	Reading books/articles about behavior strategies	6 (5.3%)	15 (13.3%)	68 (60.2%)	24 (21.2%)
4	Observing mentors, teachers, or supervising teachers dealing with behavior problems using these behavior strategies	16 (13.7%)	6 (5.3%)	37 (32.7%)	54 (47.8%)
5	Receiving feedback on how I implement behavior strategies	23 (20.4%)	9 (8.0%)	35 (31.0%)	46 (40.7%)
6	Reflective journal writing about behavior strategies	44 (38.9%)	23 (20.4%)	28 (24.8%)	18 (15.9%)
7	Watching and reflecting on videos that show the implementation of behavior strategies	22 (19.6%)	13 (11.6%)	50 (44.6%)	27 (24.1%)
8	Role-playing scenarios about using behavior strategies	35 (31.0%)	24 (21.2%)	35 (31.0%)	19 (16.8%)
9	Completing group projects related to behavior strategies	41 (36.3%)	27 (23.9%)	37 (32.7%)	8 (7.1%)
10	Completing portfolios related to behavior management	62 (54.9%)	23 (20.4%)	22 (19.5%)	6 (5.3%)
11	Other instructional techniques you've experienced (describe them and rate them)	62 (54.9%)	23 (20.4%)	22 (19.5%)	6 (5.3%)

*(1) I never experienced this learning opportunity in my teacher training or any other training. (2) I experienced the learning opportunity, but I don't feel the learning opportunity was effective. (3) I experienced the learning opportunity and was somewhat effective. (4) I experienced the learning opportunity, and it was very effective.

3.2 Reliability Measures

Cronbach's alpha is a measure of internal consistency reliability (Cronbach, 1951). Cronbach's alpha was used to assess the internal consistency of the questionnaire items, based on the results of the participants in the present study. The internal

consistency of the four sections in the survey was α = 0.720 to 0.840, as seen in Table 9, based on which an acceptable to good level of reliability is indicated (George & Mallery, 2003).

Table 9. Reliability analysis

Scale	Items	Number of items	Cronbach Alpha
Section 2 (A): Basic Behavior Management Strategies Including Applied Behavior Analysis	Q16-Q29	14	.720***
Section 2 (B): Basic Behavior Management Strategies Including Applied Behavior Analysis	Q30-Q36	7	.787***
Section 2 (C): Basic Behavior Management Strategies Including Applied Behavior Analysis	Q37-Q43	7	.742***
Section 3: Barriers	Q44-Q55	12	.792***
Section 4: Learning Opportunities	Q56-Q66	11	.840***

***p ≤ 0.7

4. Discussion

The first research question concerned the relationship between the participants' specialty and their experiences of intensive student behavior problems. In this study, a positive relationship was found between participants' expertise and their experience of more student behavior problems. Consistent with other studies (McLean et al., 2019; Sutherland et al., 2019; Westling, 2010), who found that half of the educators were struggling with students with behavioral problems, over 46% of the participants with a specialty in special education reported that they experienced a severe level of student behavior problems in the classroom, while 50% of the general educator participants reported that they experienced a moderate level of students with behavioral problems in the classroom. Special education teachers tended to have more students with severe disabilities and problem behaviors in their classroom. Students with mild to moderate disability and behavioral problems are more likely to be integrated into the regular classroom with typically developing peers. Eighty-six percent of related services team members reported they had experienced a moderate level of students' problem behaviors. Related service providers such as psychologists and special education directors often are present in the classroom for a short period of time for supervision purposes (Scheeler et al., 2016). Due to the lack of interaction between students and related services teams on a daily basis, specialists may have an insufficient description of students' behaviors, which require frequent observation and recording data to describe accurately.

The second research question highlighted the educators' perspective upon utilizing some of the basic behavior management strategies, including ABA. The result indicated that 90% and above of the participants reported punishment as an effective behavioral management strategy. The result was consistent with other studies that indicated that teachers preferred punishment (Almutlaq, 2021; Alotaibi, 2015; Khasawneh, 2020; Koh & Shin, 2014; Reeves, 2017).

Teachers in the US and in other developing countries still favor punishment as a way to cope with an undesirable behavior among students by removing a favorable stimulus. This results in a decrease of the likelihood of a behavior occurring; however, ethical considerations need to be considered before using punishment (Cooper et al., 2019). In fact, students have the right to safe and effective behavioral treatment and it is the professionals' responsibility to use the least restrictive procedures. Some teachers may mistake identifying the suitable behavioral intervention for a student's behavior problem and implement a sort of punishment as a primary strategy. On the other hand, the results indicated that, at 87%, a high percentage of educators reported making intervention plans and reinforcing specific positive behavior. This showed that educators agreed with the significance of developing behavioral intervention plans for students in need and also showed that they supported the positive behavior strategies. This is consistent with Alotaibi (2015), who found that a high percentage of teachers rated training on developing behavioral intervention plans as a desired future training. Educators believe in the importance of developing intervention plans which can be suitable for a specific behavioral problem that a student might have. Koh and Shin's (2014) study found that teachers in the US are directed to implement positive behavior management strategies, similar to the result arrived at in this study, which showed that a high percentage of educators rated reinforcing specific positive behavior as desirable.

The third research question highlighted pre- and in-service training on ABA and behavior modification courses that educators had received. Most of the participants reported that they had enrolled in behavior modification courses during their graduate or undergraduate academic programs, although 71% of pre-service and 66% of in-service educators reported that they had not received training in ABA. The findings are consistent with other studies that recommended providing educators with appropriate training on empirical and EBPs (Almutlaq, 2021; Scheeler, et al., 2016; Westling, 2010) such as ABA to cope with student's behavioral problems (Khaleel, 2019). Studies indicate that training teachers to utilize EBP through implementing behavioral interventions or teaching methods can decrease the level of stress and increase their skills to successfully manage the classroom environment (Khaleel, 2019; Scheeler et al., 2016; Westling, 2010).

Participants reported some of the barriers that they face in-service relevant to managing students with behavioral problems. The results indicated that 18% to 57% of the participants reported that a lack of supplies and professional support in their school is, sometimes to very often, a barrier that prevents them from effectively managing students with behavioral problems in the classroom. This could be a significant reason that prevents educators from implementing EBP

strategies. Lack of support from colleagues and administrators was rated as a frequent barrier by 15% of the participants. This is consistent with Scheeler et al. (2016) who found that administrators and supervisors observe educators twice a year only for the purpose of the teachers' evaluation, and this results in educators reporting a lack of feedback and support from professionals; hence, they are more likely to be unmotivated to implement EBP.

The fifth research question concerned the future learning opportunities, and educators reported the efficacy of each learning opportunity. Approximately half of the participants who experienced observing professionals dealing with student problem behaviors rated this item as a very effective learning opportunity. This indicates that observing other professionals who are modeling appropriate responses to cope with students with behavioral problems could be an appropriate training method used to teach educators Forty-two percent of participants reported that receiving feedback on how to implement a behavior strategy was a very effective learning opportunity that they had experienced. In fact, educators reported a lack of supervision and feedback to implement EBP successfully (Scheeler et al., 2016). The results indicate that educators prefer direct training such as modeling and receiving direct feedback and support to implement an evidence-based practice such as ABA. Among other learning opportunities, such as listening to lectures or reading books about behavior management strategies, 50%-53% of participants reported these as moderately efficacious learning strategies. Also, 48% to 42% of participants reported that reviewing case studies, watching, and reflecting on videos that show the implementation of behavior strategies were somewhat effective learning opportunities that they had experienced. However, 35% of participants reported that they had never experienced working in a group to complete a project related to behavior strategies, while a similar percentage had experienced that and reported this strategy as a moderate learning opportunity. In addition, 31% of participants reported that they had never experienced role-playing scenarios about using behavior strategies. Results suggest that those educators can effectively learn from direct observation, feedback, and support provided by professionals, while less interactive learning strategies, such as listening to lectures, reading books, and reflecting on case studies, were deemed to be insufficient training strategies.

5. Conclusion

EBPs are proven to be successful in managing student behavioral problems including ABA strategies (Amstad & Müller, 2020; Scheeler et al., 2016; Westling, 2010). Special education teachers are in need of additional support and guidance to implement EBPs to successfully cope with students with behavioral problems and to build a safe and effective learning environment for all. Professional development and training provided for educators during their pre- and in-service periods are recommended, to enhance teachers' knowledge and skills to fully utilize EBPs. Barriers and future learning opportunities rated by educators should be considered in order to provide suitable and effective training and support.

5.1. Limitations

There are several limitations that affect this study. First, it was conducted in a specific geographic location in a Midwestern state in the United States with a non-random, convenience sample. Thus, it is difficult to determine whether or not the population of respondents is an appropriately representation due to the specificity of the geographic location and its inability to be generalized to educators across different geographical areas. Another limitation which must be considered is that educators may interpret some of the items in the survey differently, even though the reliability of this study was computed. However, these results are also useful, since they provide an overview of the educators' understanding of EBP and applied behavior analysis, and they determine the barriers that prevent educators from utilizing EBP in the classroom. These results identify possible future learning opportunities that educators rate as effective training methods. These results assist in building a suitable training program based on the educators' needs in a particular area.

5.2. Implications of the Study

According to the results in this study, it is proven that special education teachers experience a high to severe level of students' behavioral problems. This study indicates the need, for special education teachers in particular, for support and supervision to utilize EBP practices in the classroom. In addition, this study explicitly describes those educators who reported that the lack of support and supervision are barriers that prevent them from appropriately utilizing EBPs in the classroom. Thus, the results indicate the specific needs for direct support and supervision that the educators need in order to utilize EBPs in their classrooms. This study showed that pre- and in-service teachers receive insufficient training on EBP, which leads to inappropriate utilization of EBP in the classroom. This study provides implications that can be considered by policy makers and researchers to improve teacher support programs. In fact, these results provide specific training methods that are rated as effective by educators, such as training participants using group strategies, including role-playing scenarios and completing group projects.

5.3. Future directions

These results only provided an exploration of the perspectives on the EBP among educators in a particular geographic location. Future study could be done to determine the universal support needed by educators across a wide variety of locations. Future teacher training programs could utilize direct and live training methods in order to acquire and to generalize the target skills.

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