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Opinions About Evidence-Based Practices Among Special Education Teachers

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ABSTRACT

Purpose: This study aimed to describe the opinions of teachers of students with autism regarding their knowledge, experience, use, and suggestions for evidence-based practices (EBPs) in Turkey.

Method: A total of 11 special education teachers participated in the semi-structured interviews that were analyzed using descriptive analysis.

Results: The teachers lacked the depth of understanding of EBPs and implemented fewer EBPs, although they agreed on their significance. They indicated the need for high quality preparatory work and trainings for pre- and in-service teachers. They also referred to trainings and coaching to meet this need as well as disseminating EBPs for students with autism.

Discussion and Conclusion: Disseminating EBPs among practitioners (i.e., teachers, social workers) will contribute to closing the gap between theory and practice as success of these students heavily depends on efforts that ensure practitioners deliver consistent EBPs. As to social workers, they should be equipped about EBPs to promote these individuals' inclusion in society.

KEYWORDS

Autism; special education teachers; evidence-based practices; effective practices; qualitative research

Autism spectrum disorder (ASD) is characterized by impairments in social communication and interaction as well as restricted and repetitive behaviors (American Psychiatric Association, 2013). In fact, there are two core characteristics of ASD as (a) impairments in social communication and interaction, and (b) restricted and repetitive behaviors. The presentation and severity of the symptoms differ among individuals with ASD, as such they need different intensity of special education support. Recent efforts to enhance the quality and efficiency of special education have led to the identification of the practices that are effective for individuals with ASD in educational settings (Alhossein, 2016). Therefore, several organizations (e.g., National Autism Center (NAC), 2015; National Clearinghouse on Autism Evidence and Practice (NCAEP)) and researcher teams (e.g., Rogers & Vismara, 2008) attempted to identify the effective practices, specifically evidence-based practices (EBPs).

EBPs are defined as practices that are supported by high-quality studies that are replicated across researchers and settings and employ designs that demonstrate functional relation between the practice and student outcomes (NAC, 2015; Tekin-İftar, 2019). American legislation (i.e., Individuals with Disabilities Education Act) mandates that

EBPs be used in all schools (Tekin-İftar, 2019). Following this, various organizations (i.e., NAC, NCAEP) attempted to identify EBPs for individuals with ASD. In addition, empirical studies suggest the use of EBPs as these practices ensure that students receive high-quality education in an efficient manner and have no harm for these students (Fallon et al., 2015; Gabbin, 2020; Schles & Robertson, 2019; Travers, 2017). Moreover, dissemination of EBPs among practitioners will contribute to closing the gap between theory and practice (Gabbin, 2020). Despite the legislations, systematic attempts to identify EBPs and research findings, previous research showed that the use of EBPs by teachers was scarce (Cook & Odom, 2013; Schles & Robertson, 2019; Stahmer et al., 2015).

The common use of EBPs in educational settings can be achieved through increased awareness and knowledge of teachers. Research focusing on evaluating teachers' knowledge and experience of EBPs included participants who were general and special education teachers (Gabbin, 2020; Jones, 2009; Morin et al., 2021). For example, Gabbin (2020) interviewed with seven general education teachers from preschool inclusion settings regarding the methods, procedures, and activities they use to implement EBPs. The findings showed that the teachers required professional development training on appropriate use of EBPs. In another study, Jones (2009) used interviews, observations, and self-report measures to explore 10 novice teachers' opinions, knowledge, and skills regarding EBPs. The findings showed that the teachers had knowledge of EBPs and supported the use of EBPs; however, they rarely utilized these practices in their classrooms. Morin et al. (2021) analyzed the knowledge of a total of 22775 school-based professionals (e.g., general education teachers, paraprofessionals, related service providers or special education teachers) regarding EBPs. The findings indicated that administrators and special education teachers had higher knowledge of EBPs than general education teachers or paraprofessionals. In addition, the professionals had the highest knowledge on technology-aided instruction and intervention and social skills training, and the lowest knowledge on extinction and differential reinforcement. In another study, the researchers investigated to what extent the identified EBPs ($n = 25$) were provided in teacher education and in-service training programs for special education teachers (Hsiao & Petersen, 2019). A total of 63 teachers completed the questionnaire by scoring each EBP as "never mentioned and never taught," "mentioned incidentally," "mentioned and discussed," or "mentioned and taught through direct instruction." Only 29.97% and 32.06% of the teachers reported the EBPs were taught through direct instruction in teacher education programs and in-service professional development respectively. In Turkish literature on special education, no studies investigated teacher knowledge on EBPs. However, Çifci-Tekinarslan et al. (2018) interviewed 11 pre-service teachers and found that they had little knowledge on EBPs and required more observation- and practice-based courses.

Taking all these, the literature indicates that there are only a handful of studies investigating teacher knowledge on and use of EBPs. It is significant to disseminate EBPs among teachers of students with ASD and determine teachers' professional development needs of knowledge and implementation of EBPs for teacher education programs and in-service trainings, which will enhance the quality of education of the students with ASD. Therefore, the current study aims to describe the opinions of teachers of students with ASD regarding their knowledge, experience, and use of EBPs in Turkey. After educational evaluation and diagnosis in Turkey, the children with a disability can be provided four to eight hours of free special education service in special education and rehabilitation centers in addition to

formal education in institutions such as special education classes, special education schools, or through part-/full-time mainstreaming. However, many children with ASD are in low socio-economic families, as such many of them cannot access quality education (Karadag & Bilsin, 2016; Meral & Cavkaytar, 2015). Thus, adherence to EBPs will be about maximizing the possibility of conferring educational benefits for these children in the country. Taking all these, the results may be significant in that they contribute to the literature by documenting the status of EBPs where no legislations mandate the use of EBPs in educational settings. Thus, the following research questions guided the study:

Research Question 1: How do teachers define EBP in their own words?

Research Question 2: How do teachers evaluate special education teacher preparation programs in terms of EBPs?

Research Question 3: Which EBPs do the teachers use for their students with ASD?

Research Question 4: How do teachers perceive the effects of EBPs for their students?

Research Question 5: How do teachers keep their knowledge on EBPs?

Research Question 6: Do teachers require support regarding EBPs?

Research Question 7: What do teachers think about the dissemination of EBPs?

Method

Research design

The study used a qualitative case study research design that seeks to describe a case in detail. Thus, the current study aimed at describing the opinions and perspectives of the informants on EBPs and analyzing the case as a whole.

Participants

In identifying the participants, criterion sampling was used as the researchers intended to obtain in-depth information regarding the use of EBPs in educational settings by special education teachers (Patton, 2002). Thus, the following inclusion criteria were identified for the participants: (a) having graduated from the special education program and (b) having experience with teaching students with ASD. To identify the participants who met the inclusion criteria, around 20 in-service special education teachers in various institutions (i.e., special education schools) were contacted via e-mail or phone. Teachers were told about the aims of the study and asked whether they would volunteer to participate in the study. A total of eight teachers agreed to interview. The teachers who agreed to participate in the study stated that they graduated from a special education program and had been teaching students with ASD. Additionally, snowball sampling was used in the study. The

Table 1. Demographic characteristics of the participants.

	Age	Gender	Educational Level	Experience (in years)
Teacher 1 (T1)	29	Male	Graduate Degree	4
Teacher 2 (T2)	24	Female	Bachelor's Degree	8
Teacher 3 (T3)	35	Male	Bachelor's Degree	8
Teacher 4 (T4)	27	Male	Bachelor's Degree	5
Teacher 5 (T5)	39	Male	Bachelor's Degree	16
Teacher 6 (T6)	23	Male	Bachelor's Degree	6
Teacher 7 (T7)	37	Female	Bachelor's Degree	11
Teacher 8 (T8)	27	Male	Bachelor's Degree	6
Teacher 9 (T9)	29	Male	Bachelor's Degree	6
Teacher 10 (T10)	41	Female	Bachelor's Degree	18
Teacher 11 (T11)	31	Female	PhD Degree	9

participants were asked whether they could identify any other special education teachers who could meet the inclusion criteria. As a result, a total of 11 participants volunteered and participated in the study. All teachers were in different schools and regions. The characteristics of the participants are depicted in Table 1. Teacher 1 also participated in the pilot interview session.

Data collection

From April to May 2021, in-depth interview data were collected through semi-structured interviews through Zoom platform. Database searches were conducted to determine the interview questions based on previous literature on EBPs where opinions of participants were described (Gabbini, 2020; Hsiao & Petersen, 2019; Morin et al., 2021). Finally, a question pool was generated, the relevant questions were chosen in the pool, and sent to three experts working as a researcher in special education field who were experienced with implementing EBPs. According to their opinions, the interview questions were finalized. There were 11 open-ended interview questions. The interviews focused on participants' (a) evaluation of special education teacher preparation programs in terms of EBPs, (b) own definition for EBPs, (c) preferences of EBPs and experience with implementing these EBPs, (d) perceptions for the effects of EBPs for their students, (e) opinions for factors that affect the efficiency of EBPs, and (f) practices for keeping their knowledge on EBPs. Before commencing the interviews, a pilot interview session was conducted with another participant.

Before commencing interviews with the participants, a pilot interview session was remotely conducted with a participant who met the inclusion criteria participated in the pilot interview. The participant was 29-year-old special education teachers who had 4-year of experience with teaching students with ASD. When the interview was conducted, the participant's opinions were taken toward the suitability of the questions and whether to change, add, or omit a question. Yet, no changes were made in accordance with his views. Finally, the authors together listened to the audio recording and decided that the questions were suitable with the aim of the study and that there was no need to change or edit any of the questions.

Interviews

The participants were contacted and offered the mode of participation as well as the interview time options. All participants agreed to conduct the interviews via Zoom video-

Table 2. Date, time, and length of the interviews.

	Date	Time	Length
T1	30.04.2021	20:30	28 min 19s
T2	01.05.2021	16:00	35 min 53s
T3	01.05.2021	18:00	38 min 20s
T4	01.05.2021	20:00	25 min 2s
T5	03.05.2021	12:00	26 min 33s
T6	03.05.2021	14:30	21 min 52s
T7	04.05.2021	11:30	60 min 3s
T8	04.05.2021	17:00	22 min 6s
T9	05.05.2021	14:00	40 min 35s
T10	06.05.2021	14:00	41 min 15s
T11	09.05.2021	14:30	32 min 47s

Note: Min = minutes, s. = seconds.

conferencing platform. Interviews were conducted by the first and second authors. The interviewers were trained and supervised by doctoral-level researcher with extensive experience in autism spectrum disorder and qualitative research.

Before asking the interview questions, the participants were informed that the meeting would be audiotaped and recorded, protection of the information would be ensured, and they could withdraw from the study at any time. The participants sent their written consent to the researchers through e-mail or phone message before the initiation of the interviews. Also, their verbal consent was obtained in the beginning of the interview. During the interviews, the order of the questions was changed when needed or the question was clarified if the participant could not completely comprehend the question. Additional questions were also asked to obtain in-depth and richer information. The date, time, and length of the interviews were presented in Table 2. The interviews lasted 34 min in average.

Data analysis

All interviews were conducted in Turkish. First, the audio recordings were transcribed verbatim in Turkish in page- and line-numbered Microsoft Word documents by the first and second authors. The transcriptions were read through by the third and fourth authors. Because no changes were made after the pilot interview session, the data collected from the participant in that session was also included in data analysis.

The data were descriptively analyzed based on the transcribed Turkish data. In a descriptive analysis, the following steps are conducted: (a) identification of framework, (b) sorting the data into the framework, (c) presentation of the data, and (d) interpretation (Yıldırım & Şimşek, 2016). In this study, the first and second researchers independently identified the framework based on the research questions and sorted the data by using coding sheets. Next, they used direct citations in presenting the data. Finally, the researchers separately read the transcriptions and coded the interview coding keys. Coding disagreements were resolved through team meetings. All authors discussed coding discrepancies until agreement was reached.

Trustworthiness and ethics

For transferability purposes, study procedure and the stages (i.e., identification of the participants, development of interview questions, and data analysis) were written down in

detail. Also, the use of purposeful sampling contributed to the transferability. For credibility purposes, the interviews were transcribed, and the transcriptions were validated by the respondents. The researchers adhered to ethical codes such as honesty, objectivity, respect, and openness.

Results

Definition of EBP

EBPs are considered high-quality scientific research practices that have proven outcomes across multiple studies in these reports (National Autism Center (NAC), 2015; Steinbrenner et al., 2020). Four of the 11 participants were able to correctly define EBP, while five defined EBP partially in parallel with the traditional definition in NSP-2 (National Autism Center (NAC), 2015) and NCAEP reports (Steinbrenner et al., 2020). However, two participants could not define these practices. Three of the participants who partially defined EBPs stated these practices were supported by scientific research. Also, one indicated that they were tested in controlled settings and yielded in positive results. One participant defined EBPs as effective practices. One participant remarked, “Evidence-based practices . . . There should be research conducted by different researcher groups in different regions, and they must include 20 participants as I remember. Also, the outcomes must be positive (T8).” Another participant stated, “EBPs are those with empirical evidence and research support that have positive data and outcomes (T4).”

Majority of the participants ($n = 8$) could provide examples of EBPs. The participants who exemplified EBPs indicated min 1 and max 7 EBPs. The examples included errorless learning/teaching procedures ($n = 7$), applied behavior analysis ($n = 6$), video modeling ($n = 4$), PECS ($n = 4$), discrete trial teaching ($n = 3$), and modeling ($n = 2$). One each participant gave the examples as embedded instruction, incidental teaching, music therapy, direct teaching, activity schedules, social skills training, cognitive-behavioral interventions, and early and intensive behavioral intervention.

Opinions and suggestions for special education teacher preparation programs

Ten participants stated they took at least one undergraduate course related to EBPs. Applied behavior analysis was included in the courses for seven of these participants, errorless learning/teaching procedures for three, discrete trial teaching for two, and embedded teaching, incidental teaching, scripting, video modeling, and direct instruction for one participant each. One participant said, “I took courses related to behavior management, interventions for problem behaviors, and applied behavior analysis at university (T9).” Another participant remarked, “I took courses related to teaching individuals with ASD, but the academic never used the term ‘evidence-based practices’ (T11)”

Teachers also provided suggestions for the instruction of EBPs during undergraduate classes. Majority of the participants ($n = 10$) highlighted that there should be practice-based trainings and courses on EBPs. Seven participants indicated that undergraduate students should be able to make observations at institutions where EBPs are systematically implemented. Three suggested that professional development of the academics must be ensured, and one that special education teacher preparation programs and coursework be designed

in a way to focus on EBPs. The other suggestions for improving the quality of special education programs included opening up disability training centers at universities ($n = 1$) and decreasing the number of students per course ($n = 1$). One participant remarked, “Yes, I took courses related to EBPs and I forgot what I learned after a while because I didn’t practice them. Therefore, the courses should allow students to practice the EBPs. For example, the programs may allow students to meet and teach children with special needs (T12).” Another participant said, “There is a developmental research center at a university in our country. I mean all universities must have such a center (T3).”

Teachers’ use of EBPs for their students

Nine of 11 participants reported using EBPs for their students with ASD in their classrooms. These practices included applied behavior analysis ($n = 8$), video modeling, ($n = 4$), direct instruction ($n = 4$), errorless learning/teaching procedures ($n = 4$), discrete trial teaching ($n = 2$), embedded instruction ($n = 1$), incidental teaching ($n = 1$), PECS ($n = 1$), and activity schedules ($n = 1$).

Regarding the factors that affect teachers’ use of EBPs, the teachers were asked what factors were important in choosing an EBP. According to seven participants, student performance was a contributory factor. Furthermore, target behavior was a significant factor for six participants, evidence of effectiveness for three, available materials and decisions of school administrations for two, and parent opinions and self-competence for one. One participant stated, “The trainings should be systematic for the students to learn, as such I cannot implement things randomly. This systematicity can be possible through the use of EBPs, because these practices were previously implemented and tested. Cause and effect relation of these practices is not debated. Their effectiveness and efficacy are documented (T6).” Another participant said, “I consider the student and the target behavior. An effective EBP for a student may not work for another student (T10).”

Perceived effects of EBPs

Ten of the participants indicated that EBPs were effective for outcomes of their students, whereas one teaching found them partially. One participant said, “You cannot use the same procedure for every student and behavior. When you use the correct procedure for teaching correct behaviors, it is highly likely that it will yield in positive results (T8).” The participant who thought EBPs were partially effective stated, “What is important for an EBP to be completely effective is collaboration with families or rehabilitation centers where the students attend. I mean these need to be working well so that I can say EBPs are effective (T9).”

According to all teachers, family participation in education of their children with ASD is a significant factor that influence the effectiveness of EBPs. The other factors included student functioning and motivation ($n = 9$), correct adaptations ($n = 7$), available materials ($n = 7$), teacher competence ($n = 6$), appropriate and correct EBP for target behavior ($n = 3$), high fidelity of implementation ($n = 2$), and the number of students in classroom ($n = 1$). One of the participants stated, “If the teacher has made correct adaptations and chosen correct procedure, the EBP will yield in positive results for sure (P7).” Another participant said, “It depends on the student’s functioning and performance level. Second, it depends on

the teacher competence of implementing the procedure. I mean the teachers should be able to know and use the procedure. It also depends on the material. The teachers should use appropriate materials during teaching (T2)."

Practices for keeping and updating knowledge on EBPs

Eight of the participants interviewed indicated that they continued to keep and update their knowledge on EBPs. Five of these participants stated they read technical reports (i.e., NSP-2 or NCAEP), and three read articles. Furthermore, the participants attended online trainings (n = 3), grad schools (n = 3) and in-service trainings (n = 2). One of the participants remarked, "I keep my knowledge via conferences, I mean online trainings. Sometimes, I attend in-service trainings held by the Ministry of Education (T5)." The participant who did not keep or update knowledge on EBPs stated, "Have I read any articles so far? I graduated around 8 years ago, but I have no idea about whether there are any scientific resources on EBPs (T3)."

Needs of support regarding EBPs

All participants remarked that they required support regarding EBPs. The participants stated they could receive support through in-service trainings (n = 5), online trainings (n = 4), and videos (n = 3). One of the participants remarked, "A lot of trainings were conducted via video-conferencing platforms such as Zoom. The number of these trainings as well as in-service trainings can be increased (T4)." Furthermore, five of the participants preferred receiving this support through in-service coaching. One participant said, "I would like to get support from someone, for example, an academic, about EBPs. Their feedback would be nice while I am implementing a procedure (T2)." Additionally, two participants indicated periodicals, and one indicated activities to strengthen teacher collaboration. For example, one participant remarked, "If someone tells me 'There's a magazine that consists of scientific data. You'll pay something and it'll just come to your home.', I will subscribe it for sure (T7)."

Seven participants stated that there were EBPs they did not know how to implement but would like to learn how to. The practices that the participants would like to learn included sensory integration (n = 2), PECS (n = 2), applied behavior analysis (n = 1), music therapy (n = 1), joint attention training (n = 1) and theory of mind (n = 1). One participant stated, "I would like to learn ABA provided it is genuine (T10).," and another said, "I am very curious about music therapy (T1)."

Opinions and suggestions for disseminating EBPs

All participants indicated that the use of EBPs should be disseminated among special education teachers. For this purpose, the participants suggested trainings (n = 7), preparing online platforms (n = 4), organizing suitable settings (n = 3), delivering coaching (n = 2), training parents (n = 2), and designing teacher preparation programs by focusing on EBPs (n = 2). One participant who suggested conducting trainings said, "Special education teachers can be trained. For example, teachers in Istanbul can be divided into sub-groups. After these sub-groups are trained, they can teach what they've learned to other teachers.

This is a peer-mediated practice. There are studies documenting the effectiveness of peer-mediated practices. Teachers best teach other teachers (T12).” Another participant stated, “There are nation- or global-wide resources. As you see those articles or texts are in English. However, knowledge of English is not sufficient in Turkey. Thus, there should be an online platform in our country (T2).”

Discussion

The current study described the opinions of in-service special education teachers regarding the evidence-based practices (EBPs). In fact, the current study is the first of its kind in Turkey to explore special education teachers’ opinions about EBPs. This section discusses the findings of the study in detail and provides directions for future research.

The descriptive analyses revealed superficial understanding of the concept of EBP by the participant teachers of students with ASD. In general, the teachers defined EBPs in short sentences, which lacked the depth of understanding of EBP. In fact, an EBPs were typically defined as “effective practices.” Although the effectiveness of EBPs is documented with multiple rigorous research, the term “effective” may not completely refer to EBPs. For example, teachers may have found a pseudoscientific practice as “effective.” Thus, defining EBPs by solely with effectiveness is not sufficient. This concern is also supported by the number of EBPs exemplified by the teachers. In addition to failure to adequately define EBP, they gave fewer examples for EBPs, which means they are not well-prepared and had low knowledge of EBPs. For example, applied behavior analysis was mentioned as a “procedure.” Previous research found that novice special educators had knowledge of EBPs, but rarely implemented them in their classrooms (Jones, 2009). This is a distressing result considering the quality of special education teachers is as significant as the quality of the procedure used for the students with ASD. Therefore, special education teachers must be well-versed and knowledgeable about a variety of EBPs.

All teachers agreed on the significance on preparatory work for pre-service teachers that includes observations and teaching practicums in particular. They believed the quality of special education teachers on EBPs can be ensured if students implement these practices under the supervision of a mentor. This might be possible and effective for small classes and higher number of faculty within the department, which was also reflected by the answers of the teachers. One way to overcome this problem might be to redesign special education teacher preparation programs by considering Initial Practice-Based Professional Preparation Standards for Special Educators (Council for Exceptional Children, 2020) that defines what a candidate must know before beginning to teach (i.e., *Component 6.2 – Candidates use a range of preventive and responsive practices documented as effective to support individuals’ social, emotional, and educational well-being*). These standards have been aligned with high-leverage practices (HLPs) that are defined as “a set of practices that are fundamental to support student learning, and that can be taught, learned, and implemented by those entering the profession” HLPs (i.e., *HLP 18 – Uses strategies to promote active student engagement*; Windschitl et al., 2012, p. 880). Therefore, adopting CEC standards and HLPs may help special education teacher candidates learn how to keep pace with rapid and increasing demands for instructional content such as EBPs. On the other hand, in Turkey, special education teacher candidates take practice-based courses in the last year of their education addressing a problem of “practice.” Therefore, personnel

preparation remains weak, and most teachers graduate from university with minimal training in EBPs for students with ASD. Adopting these standards may also facilitate introducing HLPs as early as possible in preparation programs. This infrastructure to support effective teaching provides teacher candidates with multiple opportunities to practice or work collaboratively to can learn to work collaboratively to plan and deliver high quality lessons.

The results showed that the teachers adhered to social validity by heavily relying on student performance and target behavior when selecting EBPs which is encouraging. However, searching for, identifying, and selecting EBPs for students with ASD is a big and complex task. For example, it is necessary for educators to consider such factors as familiarity with the language regarding EBPs, self-competence, cost, or complexity of the EBP. Therefore, adopting EBPs rely on variety of factors, and it is of significance that considering these factors when selecting EBPs may yield in more effective, efficient, and consistent student progress minimizing waste of time and resources. Leko et al. (2019) provided educators with practical guidelines for selecting EBPs that will improve outcomes for students. Teachers may use these emerging guidelines to select EBPs for their students with ASD.

The teachers agreed on the importance and effectiveness of EBPs for their students with ASD. They stated the effectiveness relied on a number of factors referring to students (i.e., student functioning), teachers (i.e., teacher competence), as well as physical arrangements (i.e., available materials). Although these play an important role in effectiveness of EBPs, there are further critical areas of focus such as data-based decision making, active collaboration, and social network support (Odom et al., 2020). Therefore, these factors and areas should be a focus of trainings both pre-service and in-service level to disseminate and increase the effects of EBPs for children with ASD.

One way to keep and update knowledge for EBPs among teachers of students with ASD can be to teach them how to access information when they begin teaching. However, there appears a number of problems in accessing scientific knowledge for teachers in Turkey. For example, they cannot access, acquire, and analyze free database information after graduation from institutions of higher education. Further, the number of practice-based in-service trainings is quite sparse (Işıkdöğün-Uğurlu & Kayhan, 2018). Third, most sources are written in English language, which retains most teachers from utilizing resources. In fact, there is fewer number of free platforms in Turkish that disseminate information about a set of EBPs (i.e., The Tohum Autism Portal). Given that the foundation of evidence-base of the practices change by years and novel EBPs may appear, accessing knowledge is significant for teachers of children with ASD. If teachers cannot access and engage in instructional innovations, it is likely that they will rely on outdated instruction that will negatively impact student outcomes.

Teachers also indicated needs for professional development support for EBPs, and referred to remote training, in-service training as well as in-service coaching as modes of support delivery. Online professional development trainings and coaching may provide a flexibility in addressing these needs of teachers via telehealth (Saraç & Olcaç, 2021). Future research can be conducted regarding appropriate face-to-face or remote in-service training and coaching model(s), framework, or practical guidelines to support continuous teacher success in implementing EBPs. In the current study, the teachers were also eager to learn EBPs that they did not know how to implement. However, it should be noted that they

would like to learn fewer number of EBPs, although the results showed that their knowledge on EBPs was limited. This raises a concern that teachers may have been using the same EBPs for all students by employing “one-size-fits-all” approach, although they stated one effective procedure for a student may not be effective for the others.

All teachers stated EBPs must be disseminated among special education teachers. For this purpose, they suggested trainings in general. In pre-service level, teacher preparation programs at universities should be improved to better prepare teacher candidates on EBPs. In in-service level, on the other hand, there is no legislative mandate to use EBPs in classrooms in Turkey, as such there is an immediate need of a legislation in general and special education mandating that all teachers implement EBPs. More recently, Teaching Profession Law (2022) have come into force to arrange the professional development of teachers as well as their career progression. The law divides career of teachers into three (i.e., candidate, expert, and head teacher) and provides extra income when each title is reached through examinations. Despite not reported how and what areas to be assessed, the exam may evaluate special education teachers’ knowledge and skills of EBPs. Furthermore, advocacy organizations and families of children with ASD can contribute to the dissemination of EBPs. Advocacy organizations can promote practices that are effective and discourage those that are proven ineffective/harmful or be based on false claims. Families can also advocate for EBPs for their children in educational settings.

Strengths and limitations

This study provides a unique description of opinions of special education teachers regarding EBPs. The lack of research investigating the specific knowledge and implementation for EBPs of these teachers suggests findings are preliminary data that have implications for development and training of personnel requirements as well as for future research regarding EBPs. In addition to the positive characteristics of the study, there are limitations worth to note. First, our study is limited to 11 special education teachers. In addition, the results of this study reflected the self-reported knowledge and use of EBPs of the teachers. This may not reflect the actual behaviors of the teachers in their classrooms, as some may have reported high use of EBPs, but rarely implement them. Thus, future researchers should make classroom observations as additional source of data for triangulation.

Conclusion

In conclusion, the success of students with ASD heavily depends on improving efforts that ensure pre- and in-service special education teachers deliver consistent evidence-based practices. However, the teachers interviewed in this study lacked the depth of understanding of EBPs and implemented fewer EBPs in their classrooms, although they agreed on the importance and significance of the use of these practices. They indicated the need for high quality preparatory work for pre-service teachers and trainings for in-service teachers regarding EBPs. They also referred to trainings and coaching to meet this need as well as disseminating EBPs among teachers of students with ASD. As to social workers, they may provide important guidance for families of children with ASD who are trying to understand their options among practices. Thus, it is important for social workers to have information about evidence-based practices so that they can disseminate EBPs.

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