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Article

Emotional and Behavioral Disorders/Difficulties in the School Context and the Role of ICTs: A Literature Review

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Abstract: Teachers have to deal with various emotional and behavioral difficulties/disorders daily in the classroom. As behavior is interpreted by subjective and social factors, problematic behavior in school is a way of students' reaction to situations that take place in the classroom and to teachers' attitudes, thus showing their desire to relate to him/her with a more substantial bond. In these difficult adjustment conditions, the teacher is called upon to help students develop their academic skills and manage their emotions by finding solutions. This article is a literature review investigating emotional and behavioral difficulties/disorders that appear in the classroom, the management of these difficulties/disorders by the teacher to prevent them, the influence of teachers' attitudes on students' behavior and academic achievement, the implementation of appropriate intervention programs, and the role of ICTs in controlling such difficulties/disorders.

Keywords: emotional and behavioral difficulties/disorders, EBDs, behavioral problems, teachers' attitude, prevention, intervention programs, ICTs, review

1. Introduction

Teachers are confronted daily with many cases of emotional and behavioral difficulties/disorders (EBDs) during the educational process. These difficulties are manifested in various ways and make it hard to adapt to the demands of school life. The exact causes of EBDs are unknown, but there are perinatal, maternal, familial, parental, socioeconomic, and personal factors that increase the risk of their development. EBDs can be classified as either "internalizing" (emotional disorders such as depression and anxiety) or "externalizing" (disruptive behaviors such as attention deficit hyperactivity disorder (ADHD) and oppositional, defiant, or conduct disorders). If these difficulties are not addressed, they may have negative short- and long-term effects on an individual's personal, educational, family, and later professional life.

There are several reviews of the emotional and behavioral difficulties/disorders that teachers face in the classroom, which highlight these difficulties as a phenomenon that greatly influences teachers and is analyzed through the stereotypes and attitudes of teachers, the ways of coping, the importance of prevention and assessment, the appropriate strategies and the need for quality and appropriate intervention programs, and the role of ICTs in controlling these difficulties. Recent research data suggests supports a decline of studies focusing on intervention programs for students with EBDs who have alarming declines in academic performance and behavioral and social skills (Garwood, Peltier, Sinclair, Eisel, et al., 2020). In addition, other research has shown that teachers' attitudes toward students with EBDs at school can affect their academic and social behavior (Scanlon et al., 2020)

To cope with the constant challenges of students with EBDs and deal with these challenges appropriately, teachers must first focus on the correct organization of their classroom and on the way they understand the behavior themselves. Education, which aims to focus on the development of cognitive and metacognitive skills, can help control behavioral problems (Drigas and Mitsea, 2020). Similarly, schools that focus on a positive classroom environment promote more functional behaviors in students, while on the contrary, schools that lack classroom stimulation are associated with worse students' results both academically and socially (Barth et al., 2004)

The purpose of this study is to provide data through a literature review related to the main emotional and behavioral difficulties identified by teachers in the classroom as well as the ways to deal with these difficulties. In addition, this literature review seeks to contribute at a practical and research level to the high demand for students with EBDs in school.



2. Materials

The methodology in this study was based on multiple searches of recent articles in three databases (ResearchGate, Google Scholar, and Pub-Med) according to the subject of the article. In particular, the term Emotional and behavioral difficulties/disorders (EBDs) was combined with words such as behavioral problems, teachers' attitudes, prevention, intervention programs, ICTs, and review. Finally, scientifically documented articles were selected to cover the fields of digital technologies and other factors in education such as Mobiles, Games, STEM, Robotics and AI, general ICT applications in Education, Metacognitive and Emotional Intelligence Techniques and Theories, and finally environmental factors.

3. Emotional and behavioral difficulties/disorders (EBDs)

3.1. Definition

Emotional and behavioral disorders/difficulties are observed from preschool to adolescence, resulting in children generally displaying "inappropriate behaviors" at various times in their lives. At this point, it is essential to inquire about differences and inconsistent from what is normal must the behavior be to be labeled as problematic. As mentioned in Heward (2011), the Council for Children with Behavioral Disorders (CCBD) proposed the definition closest to EBDs, and the National Mental Health and Special Education Coalition (NMHSEC) subsequently adopted it. The term "emotional and behavioral disorder" is characterized by emotional or behavioral responses to school programs so different from appropriate age, cultural or national norms that they adversely affect children's educational performance, including their academic, social, occupational, or personal skills. They are more than temporary reactions to stressful events in the environment, manifested consistently and stably in two different contexts, at least one of which is related to school.

3.2. Etiology and Risk Factors

The exact causes of EBDs are unknown. Through several studies, various combinations of genetic predisposition and adverse environmental factors have been identified that increase the risk of developing any of these disorders. These include perinatal, maternal, family, parental, socio-economic, and personal risk factors (Boden et al., 2010).

A summary of common risk factors for the development of childhood emotional and behavioral disorders is as follows.

1) Maternal psychopathology (mental health status): low maternal education, one or both parents with depression, antisocial behavior, psychological distress, major depression, smoking or alcohol problems, substance abuse, antisocial personality, or criminal activities, teenage parenting, disorder or violence, marital conflicts, previous abuse as a child and single (unmarried marital status).

2) Adverse perinatal factors: moderate maternal alcohol consumption, smoking and drug use, difficult pregnancies, premature birth, early labor onset, low birth weight, and infant breathing problems.

3) Poor child-parent relationships: Poor parental supervision, erratic harsh discipline, rejection of the child, parental disharmony, lack of parental limit setting, and low parental involvement in the child's activities.

4) Adverse family life: Dysfunctional families with domestic violence, poor parenting practices, or substance abuse are a problem, leading to reduced psychological function of parents, increased parental conflict, physical and inconsistent discipline, less responsiveness to children's needs, and less supportive and involved parenting.

5) Household tobacco exposure.

6) Poverty and adverse socio-economic environment: Signs of personal and communal poverty, such as low socioeconomic status, homelessness, overcrowding, social isolation, exposure to toxic air, lead, and/or pesticides, or early childhood malnutrition often lead to poor mental health development. Chronic stressors associated with poverty, such as financial worries, life stress, and single parenthood, cumulatively compromise the psychological functioning of parents, leading to higher levels of discomfort, anxiety, anger, depressive symptoms, and substance use in disadvantaged parents. Chronic stressors in children also lead to abnormal behavior patterns of 'reactive responding' characterized by chronic vigilance, emotional reactions, and a sense of powerlessness.

7) Early age of onset: Early starters are likely to experience a more persistent and chronic trajectory of antisocial behaviors.

8) Child temperament: Children with difficult-to-manage temperaments or who show aggressive behavior from an early age are more likely to develop disruptive behavioral disorders later in life.

9) Developmental delay and Intellectual disabilities: children with intellectual disabilities are twice as likely to have behavioral disorders as normally developing children.

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10) Child's gender: There is male dominance in disruptive behavior disorder and ADHD, while depression tends to affect girls more than boys.

3.3. Students with EBDs

Students with EBDs include those who exhibit externalizing behaviors (e.g., aggression, noncompliance), or/and internalizing behaviors (e.g., anxiety, depression) for a long period, and the manifestation of these behaviors harms their educational performance (Wery and Cullinan, 2013). According to Garwood et al. (2020), intervention research for students with EBDs focuses on practices based primarily on addressing challenging behavior and social skill deficits and, to a lesser extent, academic deficits. The results of these students in all major academic areas (reading, writing, and math) and social studies and science remain alarming. In addition, students with EBDs are more likely to be marginalized, drop out, or even be expelled from school, which makes them less likely to remain in school than all other students with disabilities to graduate from high school. It seems that the need for effective interventions for these students is ever-present.

3.4. Teachers' views and attitudes on EBDs

Studies on teachers' views on EBDs mainly concern and focus on their teaching experience and how they perceive their self-efficacy to manage difficulties in the classroom. Lack of financial resources, inter-agency cooperation, inadequate training in behavior management, and reduced self-efficacy due to burnout or stress are issues that have been documented in the literature (Scanlon and Barnes-Holmes, 2013; Hudson-Baker, 2005). Children with antisocial or aggressive behavior patterns find it difficult to meet the demands and rules of school life and the classroom. Their behavior causes negative reactions to both classmates and the teacher. A teacher's aggressive response to a child with behavioral difficulties can make the situation worse, as can the use of negative strategies, such as punishments or expulsion to change the student's behavior. These interactions can even affect students' relationships with their classmates and make them lose acceptance of them as well. Unfortunately, these ways promote student backlash, distaste for the school environment, and marginalization.

Using the Implicit Relational Assessment Procedure (IRAP), Scanlon, McEnteggart, and Yvonne Barnes-Holmes (2020) studied the implicit attitudes of primary and post-primary teachers toward students with EBDs in training and teachers' implicit attitudes toward typically developing students. Results showed that teachers had more negative implicit attitudes toward students with EBD, compared to typically developing students (Scanlon et al., 2020). Barnes-Holmes et al. (2006) suggested in previous studies that the conflict between what one thinks privately and what one can say publicly may inadvertently lead one to various forms of psychological stress, which may be responsible for teachers' burnout (Barnes-Holmes, Barnes-Holmes, Power, Hayden, et al., 2006). In another comprehensive study that also employed the IRAP, Scanlon, and Barnes-Holmes (2013) attempted to reduce the negative implicit bias of primary and post-primary teachers (experienced and trainees) towards students with EBDs by implementing a stress management intervention and behavioral training. The stress management intervention did not appear to be as effective, but there were indications that if participants had been exposed to the stress management intervention first, there would have been an improvement. Marginal reductions in negative bias towards EBD were found among students. The interesting part of the study was that it also showed that the interventions reduced teachers' negativity towards the inclusion of students with EBDs in general, and students' negativity about including a child with EBD in their classroom setting. (Scanlon and Barnes-Holmes, 2013).

4. Assessment and Prevention of EBDs

4.1. Assessment of EBDs

Assessing behavior that challenges teachers refers to the process of gathering information about the child exhibiting the symptoms, the environment in which they are perceived, and those who interact with the child, such as family and teachers.

The most common assessment methods are the following.

1) Discussion-interview with parents, teachers, or even the child. This process identifies when and how often the behavior occurs when it first appeared, what strategies were used to deal with it, if the behavior coexists with other symptoms, and if the behavior is related to other factors (Koliadis, 2010).

2) Systematic observation allows direct and accurate measurement of behavior, where unwanted behaviors are recorded in terms of frequency, duration, intensity, and place of occurrence(Koliadis, 2010).

3) Functional behavioral assessment is a systematic process of gathering information to understand the causes of the behavior. The teacher aims to discover the reason why the student displays the behavior, when and where it is most likely to



appear, the events that precede its appearance, as well as the consequences that are likely to maintain the manifestation of the behavior. Thus, the teacher assumes the function or purpose of the student's behavior which mainly performs two functions, either to achieve something desired or to avoid something that displeases him/her (Nahgahgwon et al., 2010).

4) Questionnaires are means of data collection for the detection and identification of each type of behavior. They mainly consist of formulated topics in the form of questions or descriptions of various forms of behavior. They are addressed to teachers, parents, and also staff who have worked with the child in recent years (Koliadis, 2010).

5) Sociograms i.e. profiles concerning the preferences and rejections of students within the school group. In this way, the teacher forms a clearer picture of the social level of his/her students and, by extension, singles out those who show deficient social skills or exhibit behavior problems. In general, it is a way to evaluate the organization of student groups.

4.2. Prevention of EBDs

At the level of prevention, the task of the teacher is not at all easy, because it is needed to find those ways that encourage positive and responsible behavior, while at the same time limiting disruptive ones. In every class, it is good to have a climate of acceptance that respects the diversity of each member of the group. The rules set by the teacher must have consistency and continuity in their observance, the teacher's expectations must be clear and realistic, social interactions must be encouraged, and the teacher needs to also focus on the individual development of each student (Fitzpatrick and Knowlton, 2009; Roache, and Lewis, 2011).

4.3. Strategies to deal with EBDs

The ability of the teacher to skillfully use a variety of strategies and manage the different situations that arise in the classroom, differentiating and adapting teaching to the needs of the students, is a characteristic of the effective teacher. Providing an effective learning environment is a strategy to prevent and deal with inappropriate behavior and makes it effective to use teaching time and create an atmosphere that fosters interest, the pursuit of knowledge, and the provision of opportunities for activities that activate the mind and imagination of students (Slavin, 2006). In addition, appropriate behavior can be reinforced and difficulties are addressed through clear rules that do not involve punishments and threats (Estrela, 1986).

Emotion control strategies are extremely important because students, through self-guidance and self-control, recognize their negative emotions and moderate their impulses. Also, the acquisition of social skills can be taught through pretend activities, role plays, and the use of humor so that the child learns to interact positively, solve social problems, and manage conflicts. For example, young students like activities such as arts, theater play, and others, while older students are more efficient in cooperative learning. Empathy training is also extremely important since students are trained how to put themselves in the shoes of others so that their egocentrism is reduced and they finally interact appropriately with their classmates and the teacher (Koundourou, 2012). Overall, emotional needs and their satisfaction are of particular importance for the development of children, creating the appropriate conditions and ensuring a pleasant and encouraging atmosphere. Thus, teachers can respond to the needs of students with EBDs by responsibly addressing difficulties and enhancing their knowledge.

5. Intervention Programs

The most widespread and scientifically documented intervention programs for children with behavioral and emotional difficulties according to the current relevant literature are the following.

1) Function-based intervention

This specific behaviorist approach is based on the principles of operant learning and is governed by the teaching-unlearning of unwanted behavior and at the same time the teaching-learning of new desirable behaviors (Blood and Neel, 2007; Kamps, Wills, Heitzman-Powell, Laylin, Szoke, Petrillo and Culey, 2011; Lane et al., 2009; Nahgahgwon et al., 2010). The teacher identifies the unwanted behavior and the conditions of occurrence, collects information with questionnaires, interviews, and observation, and finally, formulates hypotheses about the purpose of the behavior. Through the analysis of the conditions of occurrence, the teacher identifies the positive elements of the behavior and develops an intervention plan (environment, structuring of desired behavior, and regulation of predictability). The student is taught replacement behavior through positive and negative reinforcers, provision of departmental assistance, and cultivation of social skills, to obtain the desired behavior (Koliadis, 2010). To improve the environment, conditions are modified through the cooperation of the teacher with the principal, specialists, and parents. FBI is perhaps the most comprehensive and widely adapted program since others intervention programs are based on it such as the response to intervention program (RTI), mainly at the level of assessment.



2) Response to intervention

RTI belongs to the models of three-leveled prevention. At each level, the student's academic, behavioral, and social difficulties are covered. At the first level, problematic behavior is the focal point, and prevention focuses on the moment before it occurs. At the second level, for behavior already occurred, the goal is to reverse it. At the third level, the behavior is considered established, and,herefore, the main goal is to reduce harmful consequences (Lane et al., 2009). Here, the participation of teachers, counselors, and school psychologists is deemed necessary during the screening and selection of students who will participate in the program, but also during the support of the teacher, they need to ensure the validity and reliability of the method. However, the evidence and applications of RTI are not sufficient to be considered effective. Therefore, the empirical and dynamic power of the program needs to be strengthened (Maag and Katsiyannis, 2008).

3) Incredible Years Teacher Classroom Management (IYTCM) Program

IYTCM is a socio-cognitive program involving parents, children, and teachers, to reduce the risk factors for the early outbreak of behavioral and emotional difficulties (Webster-Stratton et al., 2011). Teachers specialize in behavior management through laboratory courses from trained staff. The methods used are supportive and cooperative learning, problem-solving, vignettes, role plays, breaks for behavior planning, supporting and generalizing all skills, and applying them in the classroom. The basic principles that govern the program are cooperation and relationship development among teachers, confidence, and self-efficacy of participants, goal selection and self-monitoring of progress, map design for teaching content, the guidance of knowledge, feelings, behavior, and the use of experiential methods and framing of the learning process. In addition, this specific intervention is also appropriate for students with different cultural backgrounds and various developmental abilities such as challenging behavior in the classroom. However, IYTCM has not been applied to a large population and requires a long time for its effects to become apparent.

4) Child-focused psychological intervention - Cognitive behavioral therapy (CBT)

CBT is considered one of the most widely used non-pharmacologic treatments for people with emotional disorders, especially depression, and for people with behavioral problems. Through CBT, cognitive and behavioral learning principles are combined to encourage desirable patterns of behavior. Research evidence from several trials (Ollendick and King, 1998) provides strong support for the effectiveness of cognitive-behavioral interventions in anxiety and depression. A recent study of a CBT program introduced in child-centered schools showed that it produced a significant improvement in disruptive behaviors among children (Liber et al., 2013).

5) Ecosystemic, humanistic approach

According to the ecosystemic approach, the manifestation of problematic behavior is directly linked to the context in which it occurs. The teacher, without necessarily having specialized knowledge, is involved in the process by giving different interpretations of the same behavior, relying exclusively on the positive elements of the student, and ignoring the teacher's weaknesses and shortcomings. In the humanistic approach, the teacher's role is more than as a facilitator in a student-centered classroom. Concepts such as trust, honesty, authenticity, recognition, praise as well as empathy play a dominant role in the learning process. Consequently, techniques such as sociograms, simulations, and role-play are used to aim at developing students' empathy, or their ability to understand and share the feelings of others. Furthermore, it is important to note that all the above approaches and programs must work in complementary manners to be comprehensive and achieve the best outcomes (Andreou, 2004). Moreover, according to Garwood et.al (2020), in recent years, the literature review shows that less than 15% of all published studies concerning EBDs with intervention work, and fewer are considered of acceptable quality according to rigorous standards for evaluating the quality of research.

6. Role of ICTs for Dealing with EBDs

It is generally accepted that with assistive technology, students with special educational needs can overcome obstacles and alleviate their deficits, approach knowledge, and remove isolation by restoring social reality since they allow themselves to communicate with the environment and interact with it. (Fytros, 2005). In addition, by using ICT, students can find the motivation to approach learning and improve their talents and skills.

To improve executive skills in children with ADHD, Prins et al. (2013) created the game "Braingame Brian" to help youth with ADHD improve their executive skills. "Braingame Brian", starring Brian, lasts 40 to 50 minutes and has seven worlds: Brian's neighborhood, the village, the desert island, the alleys, the beach, the swamp, and the basement lab. In each world, Brian is called upon to solve various problems. In the research, 40 children (8–12 years old) with ADHD took part in two groups: the experimental and the control groups. Only the experimental group received the "Braingame Brian" intervention. Pre- and post-intervention questionnaires were administered to parents and teachers measuring executive function deficits, ADHD symptoms, and disruptive behavior issues. The results showed that the children's executive skills and ADHD symptoms improved



significantly. However, "Braingame Brian" must be used in conjunction with other ADHD treatments such as medication and behavioral therapy, and should not be considered an autonomous treatment (Prins et al., 2013). Additionally, Bland'on Diego et al. (2016) assessed and trained attention and self-regulation in children with ADHD through the 3D virtual reality video game, Harvest Challenge. Levels of attention (0–100) were mapped through a brain-computer interface (MindWaveBCI) system by electrode placement in the frontal lobe. Two intervention sessions were carried out by 9 children with ADHD. In the first 5-minute session, the children listened to relaxing music, and in the second 25-minute session, they interacted with the 3D virtual reality video game in three phases: gathering the equipment among rules that required attention, repairing the path that due to frequent disasters needed a lot of attention to be paid to rebuild the runway, and finally harvesting as many carrots as possible while maintaining attention levels, while carrots were lost when players stopped focusing on the task at hand (Bland'on Diego et al., 2016). The results showed that the ability to maintain sustained attention and self-regulation was enhanced among the participants (Bland'on Diego et al., 2016). Similarly, Sciberras et al. (2014) found that BCI-based attention training programs moderated anxiety and low mood symptoms.

For anti-bullying prevention, Salmivalli et al. (2010) presented the "KiVa" program. "KiVa" includes a series of teacher-led lessons and computer games. The main aim of the lessons and computer games is to raise students' awareness of bullying issues that regard understanding the victim, providing safe support strategies, and encouraging students to use knowledge and skills gained in real life. Findings showed that with "KiVa" victimization and bullying decreased, also showing secondary effects on psychological symptoms and school climate (Salmivalli et al., 2010).

Finally, to strengthen social and emotional skills, Hakimirad et al. (2019) examined the effect of the video game EmoGalaxy on children who had oppositional defiant disorder (ODD). In this study, 20 boys aged 7–12 with OOD took part and two groups were created: an experimental group that received the EmoGalaxy intervention for 15 sessions of 45 minutes each and the control group without the EmoGalaxy intervention. Before and after the intervention, the social skills assessment scale (Gresham and Elliot, 1990) was used to assess the students' social skills. The children had to travel to four planets representing the four main emotions, joy, sadness, fear, and anger in the game. The purpose was to improve emotional capacity through the awareness, expression, and management of emotions by recording the emotion each time through the front camera. If the player had difficulty expressing the appropriate emotion, the game prompted them to locate the emotion through the game characters. The results showed a change in the children's social skills, while teamwork, assertiveness, responsibility, and self-control were also improve (Hakimirad et al., 2019).

7. Conclusions

We underline the importance of digital technologies in the education domain and especially in the emotional and behavioral disorders population of students. Mobile devices can facilitate productivity and improvement by making educational activities more accessible and available everywhere (Drigas et al., 2015; Stathopoulou et al., 2018; Kokkalia et al., 2016; Stathopoulou et al., 2019), various ICTs applications which are the core supporters of education (Drigas and Leliopoulos, 2013; Papanastasiou et al., 2018; Drigas and Kontopoulou, 2016; Pappas et al., 2018 Marios et al., 2019; Drigas and Koukianakis, 2009; Theodorou and Drigas, 2017; Papas and Drigas, 2015; Drigas and Kostas, 2014; Alexopoulou et al., 2019; Pappas and Drigas, 2015; Kontostavlou and Drigas, 2019), the integration of new technologies such as AI, STEM, and robotics has raised educational procedures to new levels of performance (Vrettaros et al., 2009; Drigas and Dourou, 2013; Anagnostopoulou, Alexandropoulou, Lorentzou, Lykothanasi et al., 2020; Pappas and Drigas, 2016; Lytra and Drigas, 2021), and games which transforms the education into a more friendly and enjoyable interaction (Chaidi and Drigas, 2022; Doulou and Drigas, 2022; Kokkalia et al., 2016). Additionally, the enhancement and combination of ICTs with theories and models of metacognition, mindfulness, meditation, and emotional intelligence cultivation (Drigas and Mitsea, 2020; Kokkalia et al., 2019; Drigas and Mitsea, 2021; Pappas and Drigas, 2019; Papoutsi and Drigas, 2017; Papoutsi and Drigas, 2016; Karyotaki and Drigas, 2015; Chaidi, 2020a; Angelopoulou and Drigas, 2021; Drigas et al., 2021; Galitskaya and Drigas, 2021; Chaidi, 2020b; Drigas and Mitsea 2021; Drigas and Mitsea, 2022; Drigas et al., 2022) as well as with environmental factors and nutrition (Stavridou et al., 2021; Zavitsanou and Drigas 2021; Driga, 2019a; Driga, 2019b), accelerate and improve the educational practices and results more, especially in the emotional and behavioral disorders domain and related practices like assessment and intervention.

The purpose of this study was to review the literature on the population of students with EBDs and to provide a panoramic view of the current state of the field of EBDs in the school context. The results of this literature review showed that students with EBDs exhibit poor academic and psychosocial functioning in a school setting. Preventing difficulties is challenging and influenced by the school's culture. Therefore, timely and valid assessment is crucial in selecting appropriate interventions. It is found that academically focused interventions may be more effective. More generally, there is a tendency for researchers to agree



that interventions must be "holistic", operate at multiple levels, not ignore the cognitive level, and mobilize a combination of behavioral and socio-cognitive strategies, while at the same time, being "personalized" and based on a relationship of trust with the child is necessary. In addition, individualized classroom interventions for children with emotional and behavioral difficulties can be effective when they aim to enhance positive behavior and interpersonal and emotional skills and when they are combined with the use of new technologies (Drigas and Kokkalia, 2016).

Learning approaches based on interactive environments and incorporating active and creative problem-solving enhance students' cognitive and metacognitive abilities (Drigas and Karyotaki, 2016). Literature has also shown that teachers' attitudes have an impact on academic and social behavior, and that teachers' implicit negative attitudes toward students with EBDs may be responsible for their burnout. However, with appropriate stress and behavior management strategies, prejudice against students with EBDs can be reduced. Also, these interventions may contribute to the smooth integration and acceptance of students. Last but not least, the reduction observed through literature review over the last decade in studies concerning effective and quality interventions for students with EBDs, given the enormous needs of these students, their low results in all areas, and the daily challenges in the collaboration with them, perhaps reveal that it is time to re-examine the stated priorities to chart a more effective and bright path for the future of these students and the future of the intervention programs. Overall, considering the enormous growth of digital tools, the literature review highlights the significant role of ICTs in enhancing the skills and abilities of students with EBDs. Thus, students with EBDs benefit, and teachers become also one step ahead in dealing with the difficulties of students with EBDs.

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