

American Journal of Humanities and Social Sciences Research (AJHSSR)

e-ISSN :2378-703X

Volume-5, Issue-4, pp-297-306

www.ajhssr.com

Research Paper

Open Access

How Physical Education Affects the Development and Success of Children with Special Educational Needs

Dr. Althuwaybi, Ali.

Kansas State University

ABSTRACT: The purpose of the study was to review the literature that covered important issues that affect the success of special educational needs (SEN) children and find out whether these features could be developed by the implementation of effective physical education in the education of the same. 201 scholarly articles were examined; personal inclusion and exclusion criteria were utilized to obtain the most valuable and appropriate information. A set of 20 articles was chosen with the view to finding the answer to the research question and explore the subject from all perspectives. The academic performance of children with special educational needs, successful integrations of the specialized education for SEN children, the influence of exercising on the students' performance, and teachers' and parents' effect on the performance of SEN children were explored to draw proper conclusions concerning the research question.

I. INTRODUCTION

The idea of the inclusion of children with special educational needs (SEN) in a mainstream classroom becomes more popular in modern schools. Authorities are concerned about any opportunities and effects that traditional classes could offer to special educational needs (SEN) students. In line, some parents could worry about certain difficulties and inconveniences that could be caused by the practice to their healthy children. For example, the inclusion of an ill child in a classroom could require a teacher to pay more attention and time to specific topics due to some learning retardation of a SEN student. Consequently, the rest of the class could feel bored, engage in inappropriate behavior, and pressure this kid. Moreover, their academic performance is likely to drop, as well, due to the lower amount of absorbed information. All these concerns became the burning topics of the discussion about the implementation of SEN-related policies at schools. Many countries are interested in the issue of such children's inclusion; today, they try to include them in the mainstream classroom to enhance their learning, social, behavioral, mental, and cognitive skills. However, scholars are still concerned about the effectiveness of such a program; thus, a great number of articles are published worldwide regarding the given topic. On the other hand, the efficiency of the physical education was not yet examined in regards to the students' academic performance and overall development. In line, it is important to draw the parallel between the successful integration of the physical education and successful developmental process of SEN children.

The purpose of the study at hand is to review the literature that examines important issues that affect the developmental process of SEN children and find out whether these features can be developed by the successful implementation of the physical education in the education of the same. It was also investigated whether the application of physical education will influence the grades of students in special and mainstream education facilities.

In total, 201 articles are examined, and personal inclusion and exclusion criteria are utilized to obtain appropriate information. A set of 20 articles is chosen with the view to finding the answer to the research question and explore the subject from all perspectives. However, the research question is further confirmed and expanded due to the optimistic prognoses of the successful integration of the physical education for SEN students.

II. LITERATURE REVIEW

A. Academic Performance of Children with Special Educational Needs

The research study by Johnson et al. (2009) called "Academic Attainment and Special Educational Needs in Extremely Preterm Children at 11 Years of Age: The EPICure Study" examined academic achievements of extremely preterm children at middle school, as well as their educational needs. These kids were studying at mainstream educational institutions; the authors tried to understand whether they required any special education or they could perform at a regular school just as their peers did and demonstrated the same academic

results. The authors studied 307 EP (<25 weeks or equal) survivors, who were born in Ireland and the UK in 1995. They employed a method and re-assessed 219 of them at 11 years and compared them with 153 of their peers that were carried to full term. The authors used standardized tests of the academic attainment and cognitive ability, as well as teacher reports concerning their overall performance and recommendations for their special educational needs. Moreover, they also used specific imputations to specify a selective dropout. Thus, children that were born extremely preterm had lower scores in tests that were mentioned above as compared to their peers. Extremely preterm participants scored less in reading (-18 points; -22, -15), cognitive ability (-20 points; -31, -23), and mathematics (-27 points; -31, -23). At the same time, only 13% of such students attended a special school. The authors also mentioned that 57% of extremely preterm children had special educational needs, while 55% required the special education resource provision at mainstream schools. Teachers provided their feedback for these young individuals and concluded that 50% of extremely preterm children performed lower than average as compared to the rate of 5% in their peers. However, an important clarification was also mentioned; the authors pointed to the fact that EP children, who attended school one year earlier, had a similar academic performance as compared to their peers, but required some special education assistance. Johnson et al. (2009) concluded that extremely preterm children were at a high risk of the poor academic performance and required a constant special care and assistance. The strength of this study was in the fact that authors had examined a possible risk factor for the acknowledgment of extremely preterm children's parents and provided evidence that most students needed a special education. The weakness of this study was that it had been limited to a small group of people; in addition, it had been concentrated only on the subgroup of extremely preterm individuals.

A study by Pickering and Gathercole (2004) examined working memory skills of SEN children with the general learning difficulties, literacy and language problems, as well as the attention and behavioral issues. The study evaluated the previous research on the working memory deficiency in children with special educational needs, and developed the given subject further. The authors explained that previous studies could not be considered reliable due to their limited research group. Therefore, they investigated the working memory function in a group of 734 children; it was a sample 73.4 times bigger than in any previous research. They implemented a test battery for children (WMTB-C). The battery was designed for measuring the vision-spatial sketchpad, phonological loop, and verbal working memory span. Thus, 98 students (13%) were reported to have SEN children. The group of children with language problems demonstrated certain impairments in the phonological loop and central executive tests, while their scores in a visuospatial memory test were average. In contrast, children with literacy problems scored low in all areas of the working memory assessment. On the other hand, children with behavioral and emotional problems scored average in each test. The results revealed that some specific support was required by SEN children with literacy and language problems while behavioral and emotional issues did not affect their working memory. The strength of this research study was in its assumption that SEN children with behavioral and emotional problems could be educated in the same way as healthy children if required support was provided with the view to covering their needs and social issues. The threat of this study was that these results could reject the importance of some additional help to SEN children with behavioral and emotional problems because they could perform on the same scale as their non-SEN counterparts did.

A study by Van Luit and Schopman (2000) emphasized the importance of the earliest possible intervention of the additional support regarding numeracy skills in students with special educational needs in their article, "Improving Early Numeracy of Young Children with Special Educational Needs." They started with the fact that 97% of children at the age of four and 100% at the age of five attended elementary school; with it, the authors emphasized the importance of their research. They tested 124 children between five and seven years of age and divided them into two groups of 62 children: the control and experimental ones. They examined their abilities by t-tests (IQ, age, number sense, and social-emotional behavior) and Mann-Whitney tests (socioeconomic status). Later, they provided additional support to one group of 62 participants. The authors found a significant difference between two equal groups of 62 students in the early numeracy ($t(124) = 3.29, p = .001$), math prerequisites ($t(124) = 2.45, p = .016$), counting skills ($t(124) = 3.29, p = .001$), and general understanding of number ($t(124) = 4.21, p = .000$), but no significant difference in the transfer task performance ($t(124) = .98, p = .332$). The research declared that the early math intervention had a positive influence on children with special educational needs, while the further support had to be granted to such students to accompany their development and enhance their learning skills. The strength of this study was that it provided an example of how additional training programs could be beneficial to SEN children based on a large sample of students with these problems. In turn, the weakness of this study was the fact that the authors did not investigate the way of overcoming the problem with the transfer task performance and left it as it was in their study. The threat is that this report could not be utilized by others due to its incomplete structure, which was mentioned among the weaknesses of this study.

A study by Frostad and Pijl (2007) studied the importance of social skills in the proper development and performance of SEN children at school. The authors examined 989 students from the 4th and 7th grades and

analyzed the peer acceptance, membership in a cohesive group, and friendship indexes of all participants. The result of this study demonstrated that up to 25% of SEN children were not socially included in their peers' group, while their social position strongly depended on their social skills. The strength of this study was that it examined the role of the proper social skills development in SEN children. The weakness of it was the selective inclusion of only 989 students from specific grades.

A study by Maureen Hack, Gerry Taylor, Nancy Klein and Nori Mercuri-Minich (2000) examined functioning, health status, and individual health care needs of children 10 to 14 years old weighing less than 750 g at birth. Authors compared 59 children born weighing less than 750 g at birth with 54 children weighing 750-1499 g, and 49 children born at term (Hack, Taylor, Klein, and Mercuri-Minich, 2000). The article mentions that the odds ratio for mental or emotional delay was 4.7 (95% confidence interval [CI]: 2.0–11.0) for children weighing less than 750 g, for restrictions in activity, 5.1 (CI: 1.6–16.3) and for blindness or difficulty seeing 3.9 (CI: 1.3–11.4) as well as the greater need for glasses (odds ratio [OR]: 2.8 [CI: 1.3–6.3]), special education (OR: 5.0 [CI: 2.1–11.7]), counseling (OR: 4.8 [CI: 1.0–23.1]) and special arrangements in school (OR: 9.5 [C.I. 2.1–43.6]) (Hack, Taylor, Klein, and Mercuri-Minich, 2000). The strength of this research is that they examined specific needs of children who were born extremely preterm. The weakness of this study is that they had a small sample group.

A study by Norwich (1996) prepared a report, "Special Needs Education or Education for All: Connective Specialization and Ideological Impurity," in which he emphasized the importance of the appropriate terminology to be used in relation to children with special educational needs. He provided a theoretical background for this topic; the author pointed out three kinds of knowledge that were necessary for children with individual needs (arising from their difference from others), exceptional needs (features shared by some, for example, the visual impairment), and everyday needs (shared by all) (Norwich, 1996). Some suggestions and policy recommendations were offered for the future research. The strength of this article was that it examined the nature of SEN children and analyzed their exceptional needs and demonstrated the importance of emphasizing the policy bias and possible inclusion of children at mainstream schools. The weakness of this study was that it did not present any experimental data but rather provided the theoretical background.

A study by Levins, Bornholt, and Lennon (2005) examined teachers' attitudes to SEN children. In total, 77 educators participated and shared their experience about in-service training courses (Levins, Bornholt, & Lennon, 2005). Results demonstrated that the feeling of guilt and anxiety in teachers was usually linked to negative intentions. Profiles of attitudes were similar in terms of the personal and teaching experience. In line, less positive attitudes were observed towards children with weak social skills, while more positive ones towards those with lower cognitive skills. The strength of this study was that authors examined specific attitudes towards children with social and cognitive retardations. The weakness of the same was the limited number of participants.

A study by Harry, Allen, and McLaughlin (1995), analyzed a 3-year study of African-American parents of 24 SED preschoolers in a large urban school district. The authors conducted interviews with parents and professionals, observed conferences, and examined students' documents to arrive at proper conclusions. Despite the limited participation of parents, the research demonstrated the initial effort by families to take part in their children's education process and mitigation of all related subjects. The stereotype that parents were not involved in their children's education was refuted, and further comments about the critical role of the effective communication and parents' involvement instead of compliances were provided. The strength of this study was that authors examined the parent's participation in the education process of their SEN children and provided valuable suggestions on how to improve the children's performance by influencing their parents. The weakness of this study was the limited participation, as well as the ethnic background of SEN children's parents.

B. What the Successful Integration of Specialized Education for Children with Special Educational Needs Is

The extensive literature review by Kalambouka, Farrell, Dyson, and Kaplan (2008) that is called "The Impact of Placing Pupils with Special Educational Needs in Mainstream Schools on the Achievement of Their Peers" studied the potential problems that could arise due to the integration of SEN kids in mainstream classrooms. Many teachers and parents were concerned about any potential drawbacks of this practice because educators could be forced to spend too much time to address exceptional needs of SEN students. In line, the academic performance of their peers could drop in the long run. The purpose of this study was to provide a systematic literature review of this issue and present the report of any abnormalities in the education process if such arose. Their methodology was followed by the procedure adopted by the Evidence for Policy and Practice Information (EPPI) Center. They had to analyze 7,137 papers and chose specific reviews by employing confirmed inclusion and exclusion criteria. They read through all titles and abstracts of each possible paper and obtained copies of 119 articles, which were further analyzed in details. After the systematic review of these studies by multiple authors, the scholars decided to narrow their report to the generalization of 26 studies, which presented the most valuable information and were further subjected to the EPPI data extraction process and

synthesis. The implication of this research was in the fact that the overall finding confirmed the lack of adverse effects on students without SEN after the successful inclusion of children with SEN in the mainstream classrooms. It is significant to mention that 81% of outcomes demonstrated neutral or even positive effects on the academic performance of no-SEN children. While the limitations of analyzed articles mostly considered the quality of those research studies and the fact that most of them was carried out in the US, the authors further emphasized that the outcome of their report could serve all teachers, authorities, and parents and help feel comfortable about the inclusion of SEN children in the classroom at the time of the rising interest in this problem. The strength of this report was that it confirmed the positive effect of such children on other students, who had to study in the same class. In such a manner, this inclusion either had no significant influence on their academic performance or even raised their achievements. The weakness of this study was that some of those articles possessed limited information about the subject and mostly considered the U.S. schools. The threat of this study was that the EPPi inclusion and exclusion criteria, as well as scholars' intentions, could lead to the subjective review of the issue, as well as present inappropriate and incomplete data concerning the new tendency. Meanwhile, the need of accurate information was growing due to the implementation of policies regarding the inclusion of SEN children in mainstream schools in all countries worldwide.

A study by Lloyd (2002) explored the completely new dimension of the teaching practice by using the example of Dutch practicing teachers. Her extensive review of 15 professionals, who were administered to participate in the Master's Degree program in SEN and their performance with their students and continuing professional dialogue with participants, provided some very useful data and evidence of the influence of the program on the study. Each teacher began the process of the own development as genuinely transformative intellectuals and extended their practice to support peculiar needs of children with special educational needs. The professional performance enhanced the children's development, as well as problematic fields in the successful integration of SEN students. It is significant to mention that these teachers emphasized the importance of employing a unique practice in addressing individual needs of each SEN student. In such a manner, blind children needed a new curriculum to develop more independent learning skills; thus, they could investigate subjects per their weak education sides due to the lack of sight. In line, students with hearing problems required teachers who could develop a professional profile for the needed support and implement it in the own practice to help these children (Lloyd, 2002). The strength of this study was that it examined the role of advanced teaching skills and the importance of the implementation of a technique that could solve individual problems of SEN students, target their weaknesses, and develop their performance in those fields where their retardation peculiarities could serve as significant barriers to learning. The weakness of this study was that it was limited, entirely qualitative, and very subjective. The teachers' self-evaluation and a small number of participants could be a significant barrier for the further investigation in the field of study as other scholars could consider it too subjective.

On the other hand, a study by Neel, Meadows, Levine, and Edgar (1998) reported the potential drawback of the specified attention to children with special educational needs in their report, "What happens after special education: A statewide follow-up study of secondary students who have behavioral disorders." They stated that there are a few follow-up studies about the future of children with special educational needs, who experienced specific problems, to help them develop in the unique and necessary way. The study conducted a phone interview with 4,157 people (160 SEN kids with behavioral and emotional problems, 793 non-handicapped children, and parents of all these groups) (Neel et al., 1988). Out of 160 disabled participants, 88% were the Caucasian, 8% – Black, 2% – Hispanic, 1% – Asian, and 1% – Native American students. Only 542 non-handicapped students out of 793 were included in the study because their parents picked up the phone. Out of 542 subjects, 93% were Caucasian, 2% – Black, 1% – Hispanic, 3% – Asian, and 1% – Native American students. The results of this study were that less than one in five students with special educational needs, who had behavioral or emotional problems, attended post-secondary education; meanwhile, non-handicapped students reported a 50% rate. Only 60% of disabled children were employed as compared to 73% of non-handicapped kids (Neel et al., 1988). As for the effectiveness of the program, scholars stated that about one-third of all SEN students did not receive any training and support that were required for their successful transition to the adult world. About one-third of all parents, who had SEN children, were dissatisfied with the help that their children received at school; moreover, one-third of all parents were dissatisfied with the job that their kids received, as compared to 14% and 16% rates for parents of non-handicapped children's respectively (Neel et al., 1988). The weakness of this study was that they considered minorities, who could face the discrimination and other related problems, as well as could receive the inappropriate service at the school. The study did not examine children that passed the same education facility so that the effectiveness of the program could not be supported, and the further research was needed. The threat of this investigation was that these studies revealed the ineffectiveness of the specialized education; meanwhile, children still needed an explicit support to develop mentally and physically at the early stages of their life and even when they were adults.

C. The Impact of Exercising on Students' Performance

A study by Morley, Bailed, and Tan (2005) emphasized all pros and cons of the inclusion of special education kids in the PE classroom in their article, "Inclusive Physical Education: Teachers' Views of Including Pupils with Special Educational Needs and Disabilities in Physical Education." The paper explored a purposive sample of 43 secondary school students (of 11-18 years of age) with a 100% response rate of teachers, who received an offer for the participation in the research. The main point of the study was that Physical Education classes were different from standard classrooms as it could be dangerous for kids with special educational needs. The study pointed to the significance of the teachers' education and training, as well as strategies, which could prepare SEN students and their peers to the further participation in the PE class. While authors found significant problems with the inclusion of SEN students in the team situations where they experienced distinct sociological challenges, he proposed possible interventions which could help in solving of these issues. The acceptance was rarely maintained due to the lack of training and preparation of students; such activities as swimming, gymnastics, and other indoor activities have a positive effect on students. They confirmed the successful integration of SEN students in the mainstream PE class. The authors mentioned that some special support was needed at schools, while people had to be hired to help PE teachers, who faced certain difficulties in the integration of SEN children in their classes. The strength of this study was that it explored the inclusion of SEN children in physical activities together with their peers, while a few types of research were done in this field. The weakness of this study was that interviews with teachers could be subjective, while the professionalism of some of these teachers was questionable, as well. Some educators relied on their personal knowledge, to support SEN children, while the special and professional care was needed. On the other hand, other teachers displayed the lack of understanding in the field so that they did not know how to handle specific situations in the class. The threat of this study was that educators, who would read it, could think that the lack of knowledge in this field was a standard situation or become afraid to display their weaknesses while requiring some additional support for enhancing their positive learning outcomes for children. It could be substantial for teachers to understand that the lack of knowledge was a considerable threat, and they needed extra training and learning.

A study by Cambra and Silvestre (2003), studied the degree of the social inclusion of students with special educational needs at the school, and explored the relationship between social inclusion and the students' self-concept in comparison to their non-special needs classmates. To achieve this aim, the authors administered social, academic, and personal self-concept dimensions of tests. The research group included 97 special educational needs students that were integrated into mainstream classrooms in Catalonia (Spain) (Cambra & Silvestre, 2003). The group of students with special educational needs experienced motor, hearing, visual, learning, mental, and relational retardation issues. The authors examined both the adaptation of the course content and specific approaches for each disability of every student with special educational needs. They emphasized that the physiotherapy, speech therapy, and other related support tools could play a crucial role in the children's academic performance; thus, they had to be integrated into an additional practice at schools. The article also explored how these dimensions can improve the social status, academic performance, and other significant traits of the successful integration of students with special educational needs. In their study, the authors included 260 students, out of which 65% had no training requirements, while 97 of them had some retardation issues. They used the self-concept scale for the evaluation of the self-concept of special needs students and a sociogram to assess the social acceptance and detect students with social problems. Results of the self-concept test demonstrated that the mean score for the group with special needs was 14.90 ($SD = 4.19$; $r = 5-22$); for the other students, it was 17.25 ($SD = 3.87$; $r = 4-23$) (Cambra & Silvestre, 2003). The results of the sociogram proved that children with no special educational needs were chosen more often for classwork and play activities as compared to SEN peers. The comparison showed that in both activities, the being chosen rate was $t = 4.46$, $P = 0.000$ for classwork; $t = 3.74$, $P = 0.000$, for free-time activities. Meanwhile, the rejection played a significant role for students with special educational needs, having $t = -1.96$, $P = 0.052$ for the classwork; $t = -1.77$, $P = 0.079$, for free-time activities (Cambra & Silvestre, 2003). SEN students were still chosen sometimes for both activities, but much less frequently than their healthy mates. At this point, the authors emphasized the importance of the socialization activities at the integrated school. The strength of this study was that it examined how specific practices, for example, exercising, speech therapies, and some other related implementations enhanced the social and academic performance of students with special educational needs. The weakness of this study was that it examined only one school, while a different social environment could play a crucial role in the acceptance of children with special educational needs.

The study by Meegan and MacPhail (2006) examined the relationship between the specific special educational needs (SEN) of the mild-moderate mentally impaired (MMMI), emotional/behavioral disorder (EBD), moderate-severe mentally impaired (MSMI), and specific learning disabled (SLD), and the selected attributes of the academic preparation, gender, and previous experience in teaching students with SEN (Meegan & MacPhail, 2006). They used the *Physical Educators' Attitudes toward Teaching Individuals with Disabilities-III* (PEATID-III) tool to obtain valuable data (Meegan & MacPhail, 2006). One of the core things that were

mentioned by authors was that the “PE guidelines exist that among other things aim (a) to enhance the student’s sense of self through the development of skilful and creative performance of practical activities and (b) to develop the personal enrichment of the student by developing personal and social skills, and encouraging positive attitudes and values in his/her interaction with others” (Meegan & MacPhail, 2006). The study also emphasized the attitude–behavior relationship, Attitudes of PE teachers toward teaching SEN students, and Theory of Reasoned Action (Meegan & MacPhail, 2006). The tool that was mentioned above, PEATID-III questionnaire, was sent to 745 physical educators of secondary schools from the class database of the Department of Education (DoE). Unfortunately, they received a little response level of 25%. The implication of this study was that females appeared to be more favorable to the involvement of SEN children in their classroom than males were; meanwhile, the previous experience in teaching SEN students did not play any significant role in teachers’ responses. On the other hand, male teachers demonstrated a more positive attitude towards the inclusion of MSMI kids if they had any previous experience in working with them. Moreover, the initial teacher training (ITT) and PE advanced education did not help educators due to the lack of extensive training on how to handle the class with SEN students. The strength of this study was that it emphasized the importance of further policies implication that could regulate the appropriate education of teachers to allow them to serve exceptional children. The weakness of this study was adopted in one country– Ireland.

A study by Coates and Vickerman (2008) published an article “Let the Children Have Their Say: Children with Special Educational Needs and Their Experiences of Physical Education–A Review,” in which they examined the literature concerning the relevance between experiences of Physical Education (PE) and perspectives of children with special educational needs. They found six key concepts that affected the performance of such students in and outside a classroom, as well as the satisfaction rate: their experiences of PE teachers; children’s experiences of PE; feelings of the self-doubt; discrimination by others; empowerment and consultation; and barriers to the inclusion. The authors reviewed seven related articles from academic journals: *Adapted Physical Activity Quarterly*, *European Physical Education Review*, *Disability and Society*, *Support for Learning*, *Journal of Physical Education, Recreation, and Dance*, and *Journal of Research in Special Educational Needs* (Coates & Vickerman, 2008). The research also investigated that SEN children enjoyed PE when being fully included. On the other hand, the authors mentioned that the limited teacher training, material barriers, and discrimination limited the inclusion of SEN students in PA activities, which included the exercising and action for their physical, social, and mental development. The authors also suggested teachers and parents to ask their SEN children whether they wished to participate in a PE class, as well as include them in the discussion about their education future to increase the children’s academic performance and satisfaction rate, as well as their chances for the inclusion in any activities. The strength of this study was that it was one of a few researches that considered SEN children’s thoughts about the pros and cons of exercising and activities with peers during PE classes, as well as all related aspects of their education. The weakness of these studies could be a subjective and emotionally driven response of SEN children, who could face the peer pressure and discrimination in their PE classes, so that they could lie and provide inaccurate data.

A study by Vickerman (2007) argued about the inclusion of children with special educational needs in the physical education (PE) classes. Questionnaire responses were gathered from 24 English teacher-training providers and five interviews. The study reported the lack of training and time for maintaining the appropriate care for SEN children, while teachers had to prepare carefully for the presence of SEN children in their classes. The strength of this study was that it examined the experience and personal attitudes of teachers. On the other hand, the weakness of the same was that the sample population was too small.

D. Teachers’ and Parents’ Influence on the Performance of Children with Special Educational Needs

The study by Rotter and Bartak (1973) emphasizes the importance of specific teaching strategies in the development of children with special educational needs. The authors incorporated three units that served as three different dimensions for their further investigation. Unit A was used for determining regressive techniques of teaching individual skills with the minimal attention on the implementation and mastering of these traits. Unit B was used for representing the classroom, which incorporated both children with special educational needs and their peers, who did not require any school support. In contrast, unit C was a special school for autistic children; it incorporated specific techniques to enhance the performance of autistic students. Children from all units were followed up during two periods: 20 months in 1969, and again in 1970/71. Moreover, some of them were reviewed after 3.5-4 years after the initial measurements. The total number of subjects was 50 with an average age of 7-9 years. The authors evaluated the intelligence, social behavior, language, and education attainment of all students. For the social behavior patterns, they examined the classroom set-up, test and play situations, and behavior at home. The additional implication of a study included the information regarding the educational progress and how it could be enhanced for autistic children, how the education performance depended on the type of the chosen unit, how the educational achievement correlated with the social and behavioral development, and how the education process depended on the nature and severity of the child’s

handicap. Furthermore, the authors emphasized how far the education progress correlated with the social and behavioral development. They mentioned that children with special educational needs had a high level of social handicap ($r=+8.80$), while an increase of social responsiveness tended to accompany a diminution in the deviant behavior ($r=+0.46$) and mitigation of the social disability ($r=+0.50$) (Rotter & Bartak, 1973). Despite it, the authors examined how a pattern of the social, behavioral, and educational progress varied between A, B, and C units. They mentioned that there was no difference in improvements in behavior, social handicap, and social responsiveness in all three units, while the scholastic approach was greater in those units, which were more task-oriented. The next implication of authors' research was the definition of the factors in each unit that led to any social and behavioral improvements in children. At this point, the authors mentioned that units' A and B provided a better teaching practice because they enhanced the children's learning by providing challenging tasks on a regular basis. On the other hand, unit C was stronger in the use of warmth, physical contact, and care for enhancing the children's performance, but lacked the systematic approach, which was evident in other two units. The threat of the unit C was that the lack of warmth and contact could cause a regressive approach without additional benefits. The behavioral improvements relied on the cooperation of teachers and peers, while units' A and B provided a greater effect of peers as compared to the unit C, in which the teacher's influence was dominant. One of the biggest threats that were common during the examining process was that children could have different behavior at home and school. At that point, the authors researched the role of parents and what contact with the same was needed for the successful investigation of the systematic approach and development. The difference in behavior could be explained by the lack of parents' acknowledgment of the issues that could be relevant to their children, as well as the lack of training for implementing actual practices at home. The article declared that, despite the significant improvement of the on-task behavior at school that was shown by the children of the Unit C as compared to other units, the same tendency had not lasted for long, and the behavioral problems returned at home. The authors mentioned additional studies of the implementation of the behavioral therapy for autistic children, which demonstrated a vast improvement while staying at the hospital, but the achievement was soon lost when they were discharged. Therefore, additional strategies had to be developed and implemented in a daily behavioral therapy for all children with special educational needs so that the positive effect of the behavioral therapy could continuously enhance their development. Parents had to be involved to the same extent as teachers were and provide their children with additional care at home. There was a need for training for both teachers and parents because their cooperation could define the development of children's behavior. It should also be mentioned that authors incorporated a constant communication with parents in the units' A and B so that parents were seeking additional help and learned how to provide the needed care. Nevertheless, it was still not enough for maintaining a proper systematic approach. It happened because sometimes, parents did not know what happened at the unit so they failed to continue the developmental process at home. A close cooperation was the way out of this situation because it is the only way to increase children's achievements. The authors mentioned that the private schooling was also necessary in the provision of the needed care as some kids had to go to hospitals after the end of the unit due to the lack of other options for parents who could not cope. The authors also extended their knowledge about the effect of mixing children with special educational needs with the healthy ones. Children from the unit B represented a mix of autistic and non-autistic children with behavioral problems. It appeared that the interaction between autistic children and other equals in age was a rare event that could not provide autistic kids with the proper social development. Therefore, they had to rely only on teachers and parents regarding their social development. While considering the academic performance of children with special educational needs, the authors also mentioned that there is a growing need for the understanding enhancement during the learning for these kids. All units showed that children could be able to learn better with the appropriate support of teachers and parents, but their reading skills still struggle the most. Students could not pronounce words correctly, as well as read accurately. It was the sign of the lack of understanding of the material; in such a manner, children learned things, but did not understand them, as well as could not think about the further application of that knowledge. Therefore, it was proved important to investigate appropriate strategies and pay attention to the meaning of information that was absorbed by children. In such a manner, teachers and parents had to repeat the information and explain it to children before proceeding with the learning. Despite these facts, the authors pointed that the psychological assessment was unavailable at school; thus, they had to rely on teachers' personal judgments concerning the progress of children with special educational needs. The transition of SEN kids to regular schools had to be carefully supported due to the threat of additional disturbances. Children could experience peer pressure, as well as difficulties in coping with the advanced material. However, additional lessons and interactions with teachers could help students with special needs overcome these problems and benefit from the transition as the authors asserted. The strength of this research was that it covered different aspects of the care related to children with special educational needs. The authors outlined their research and tested their theories in practice by analyzing specific class settings. They emphasized the strength and weaknesses of each classroom setting, as well as developed strategies for enhancing the developmental process. The weakness of this study was that the society was changing; thus, with time, the

accuracy and relevance of the given data would be questionable. While this study is important for understanding the importance of teachers and parents in the life and performance of children with special educational needs, it could be stated as a fact that the same tendencies could repeat in the modern class settings. On the other hand, only some trends had changed in the modern society but people had become aware of the problems and realized that children with special educational needs live next to them. Therefore, nowadays, the developmental success could be even further enhanced by the social interaction with other people due to their extended understanding and emotional intelligence, which was not present in the given study. Therefore, an additional weakness here was that children possibility to experience greater or smaller problems with the education process and odds for both are the same; thus, it was impossible to predict the outcome even with a greater knowledge of the issue.

A study by Male and May (1997) examined psychological issues in teachers of children with special educational needs. The study investigated the stress, workload, and burnout in educators of SEN students in the specific classroom settings. The authors administered a questionnaire to 56 mainstream educational institutions, eight schools for children with moderate learning difficulties (MLD), eight for children with emotional and behavioral difficulties (EBD), and eight for children with severe learning difficulties (SLD). In total, 221 teachers responded to the questionnaire; these schools were situated in urban, inner city, and rural areas in the southeast of England (Male & May, 1997). The study found out that generalized claims about the burnout were not justified, but the emotional exhaustion was common in all school settings. Long hours of work were also present at any school that had children with special educational needs, while the work overload was reported in ordinary, MLD, and SLD schools. However, sources of intense stress were not related to kids with special educational needs but mostly relied on the workload and challenging behavior. The strength of this study was that the authors examined stress in teachers of students with special educational needs because it was the major factor when it comes up to upbringing kids, who required additional care and understanding. The weakness of this study was that it used questionnaires rather than face-to-face interviews or specific anonymous research with the sample and control groups.

A study by Silva and Morgado (2004) provided an extensive literature review about the significance of the inclusion of teachers' support at schools to help other educators provide a reliable service for SEN children. The study also conducted interviews with 76 support teachers that worked in six independent educational teams in Lisbon, Portugal. Meanwhile, only 30% of support teachers had special training in teaching SEN children. Support teachers appeared to be an important factor that contributed to the better academic performance of SEN students. Support teachers effectively increased their academic performance by investigating such factors as the curriculum design, school climate, and teaching approach, while they failed to cause an increase in the out-of-school performance. The strength of this study was that it examined the importance of teachers' support in the education of SEN kids, while a few types of research were conducted in that field. The weakness of this study was that it analyzed subjective responses from support teachers in their interviews.

A study by Runswick-Cole (2008) examined the parents' attitude towards the inclusion of their SEN kids at mainstream schools. She contacted 24 parents through a voluntary organization and conducted an interview with them at their homes or via a telephone, as well as gathered data from seven professionals. The study revealed that parents are mostly worried about barriers to the inclusion of their children in schools and other external factors rather than care about special needs of their offspring. The strength of this study was that it examined parents' concerns and psychological difficulties that could be crucial for the successful inclusion of SEN kids in a mainstream school setting because parents played a significant role in this decision. The weakness of this study was the limited sample group of only 24 parents and seven professionals.

III. RESULTS

The literature review confirmed the lack of information regarding SEN children. The key phrase "special educational needs study" was used to research the given topic. 201 research articles and books were reviewed, while personal inclusion and exclusion criteria were utilized to find appropriate material. The study stopped as soon as the researcher chose 20 relevant articles out of 201 in Google Scholar's list. Unfortunately, many articles provided inaccurate information about the given issue due to the small sample population or the inappropriate interpretation of results. However, due to the lack of accurate information and reliable sources in the chosen field of study, even outdated works, as well as articles with a small experimental group, were included to show the common tendency in the selected field. The justification for this decision was that old sources could also serve as reliable ones in the modern society due to the small shift in people's perception, while articles with a small research sample could also be useful for displaying the tendency that could also work for the larger audience.

An in-depth review of 20 scholarly sources related to the performance of SEN children was conducted. All important issues related to the research questions were outlined. The study showed all significant perspectives on the issue of SEN children at both specialized and mainstream school. Each article presented a unique view of the problem and further emphasized the topic of the academic performance of SEN children.

IV. DISCUSSION

The first group of studies was designed for summarizing all general aspects that related to the presence of SEN children in the education process. Preterm birth potential difficulties, general learning difficulties, literacy and language problems, as well as attention and behavioral problems, earliest possible intervention of additional support regarding numeracy skills, the importance of social skills in the proper development and performance of SEN children at school, functioning, health status, and special health care needs, teachers and parents attitudes towards the education future of their children were examined in the first section of the literature review. The first group of research articles discussed the importance of the early intervention with the view to supporting SEN students, as well as the implication of strategies for parents and teachers to help their offspring. The second group of sources provided the summary of the successful integration of SEN kids in mainstream classes. Meanwhile, the third part of the investigation outlined how exactly exercising affected the development and success of children with special educational needs. The overview of five sources of previous research and literature review on the given field reported the positive effect of the inclusion of exercising, gymnastics, and even swimming in the curriculum for SEN kids. Moreover, the positive effect of the PA classes and activities on SEN students' academic, social, behavioral, cognitive, and mental development was proved by scholars in each research study. The final part of the literature review provided additional information about the importance of teachers and parents maintaining the successful inclusion of specific strategies in the school and preschool education processes. It is essential to mention that both parents and educators play a significant role in the development, adaptation, and comfort of SEN children.

V. CONCLUSION

To summarize the issue, it should be mentioned that the given literature analysis provided a full picture of the issue of the SEN children's developmental process both at and mainstream schools. Moreover, additional issues that could impact these students' developmental process were examined. The parents' and teachers' role in the SEN children's development was also studied. However, the precise answer to the research question was given and additional findings concerning the positive effect of the exercising inclusion practice on SEN children's social, behavioral, cognitive, and mental development, in parallel with their academic performance were obtained. In such a manner, Exercising affects the development of positive traits in SEN children, which are essential in their successful development.

REFERENCES

- [1] Johnson, S., Hennessy, E., Smith, R., Trikić, R., Wolke, D., & Marlow, N. (2009). Academic attainment and special educational needs in extremely preterm children at 11 years of age: The EPICure study. *Archives of Disease in Childhood-Fetal and Neonatal Edition*, 94(4), F283-F289.
- [2] Rotter, M., & Bartak, L. (1973). Special educational treatment of autistic children: A comparative study—II. Follow-up findings and implications for services. *Journal of Child Psychology and Psychiatry*, 14(4), 241-270.
- [3] Cambra, C., & Silvestre, N. (2003). Students with special educational needs in the inclusive classroom: social integration and self-concept. *European Journal of Special Needs Education*, 18(2), 197-208. <http://dx.doi.org/10.1080/0885625032000078989>
- [4] Lloyd, C. (2002). Developing and changing practice in special educational needs through critically reflective action research: A case study. *European Journal of Special Needs Education*, 17(2), 109-127.
- [5] Pickering, S. J., & Gathercole, S. E. (2004). Distinctive working memory profiles in children with special educational needs. *Educational Psychology*, 24(3), 393-408.
- [6] Van Luit, J. E., & Schopman, E. A. (2000). Improving early numeracy of young children with special educational needs. *Remedial and Special Education*, 21(1), 27-40.
- [7] Kalambouka, A., Farrell, P., Dyson, A., & Kaplan, I. (2008). The impact of placing students with special educational needs in mainstream schools on the achievement of their peers. *Educational Research*, 49(4), 365-382.
- [8] Neel, R. S., Meadows, N., Levine, P., & Edgar, E. B. (1988). What happens after special education: A statewide follow-up study of secondary students who have behavioral disorders. *Behavioral Disorders*, 209-216.
- [9] Morley, D., Bailey, R., Tan, J., & Cooke, B. (2005). Inclusive physical education: Teachers' views of including students with special educational needs and/or disabilities in physical education. *European Physical Education Review*, 11(1), 84-107.
- [10] Male, D. B., & May, D. (1997). Research section: Stress, burnout and workload in teachers of children with special educational needs. *British Journal of Special Education*, 24(3), 133-140.
- [11] Meegan, S., & MacPhail, A. (2006). Irish physical educators' attitude toward teaching students with special educational needs. *European Physical Education Review*, 12(1), 75-97.

- [12] Coates, J., & Vickerman, P. (2008). Let the children have their say: Children with special educational needs and their experiences of physical education—A review. *Support for Learning*, 23(4), 168-175.
- [13] Silva, J. C., & Morgado, J. (2004). Support teachers' beliefs about the academic achievement of students with special educational needs. *British Journal of Special Education*, 31(4), 207-214.
- [14] Runswick-Cole, K. (2008). Research section: Between a rock and a hard place: parents' attitudes to the inclusion of children with special educational needs in mainstream and special schools. *British Journal of Special Education*, 35(3), 173-180.
- [15] Frostad, P., & Pijl, S. J. (2007). Does being friendly help in making friends? The relation between the social position and social skills of students with special needs in mainstream education. *European Journal of Special Needs Education*, 22(1), 15-30.
- [16] Hack, M., Taylor, H. G., Klein, N., & Mercuri-Minich, N. (2000). Functional limitations and special health care needs of 10-to 14-year-old children weighing less than 750 grams at birth. *Pediatrics*, 106(3), 554-560.
- [17] Norwich, B. (1996). Special needs education or education for all: Connective specialization and ideological impurity. *British Journal of Special Education*, 23(3), 100-104.
- [18] Vickerman, P. (2007). Training physical education teachers to include children with special educational needs: Perspectives from physical education initial teacher training providers. *European Physical Education Review*, 13(3), 385-402.
- [19] Levins, T., Bornholt, L., & Lennon, B. (2005). Teachers' experience, attitudes, feelings and behavioural intentions towards children with special educational needs. *Social Psychology of Education*, 8(3), 329-343.
- [20] Harry, B., Allen, N., & McLaughlin, M. (1995). Communication versus compliance: African-American parents' involvement in special education. *Exceptional Children*, 61(4), 364-377.