



Exploring the Perspectives of Preschool Teachers on Implementing Structured Motor Programs in Inclusive Classrooms

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Abstract

Children with disabilities (CWD) tend to participate in fewer physical activities than typically developing children. During motor play, CWD often depend on teachers to provide direct instruction and frequent opportunities to practice motor skills, to interact with their peers, and learn new skills. To promote participation in physical activities for CWD, it is necessary to understand (a) teachers' perceptions about the importance of structured motor programs and (b) teachers' thoughts and concerns about implementing structured motor programs. The aim of this study was to understand teachers' perceptions about structured motor programs (e.g., obstacle course, bowling) and factors that may influence their motivation to implement them. Semi-structured interviews were conducted with 17 teachers who taught in inclusive preschools. Interview data were transcribed and analyzed to identify key themes. The results show that the majority of participants valued structured motor programs and were aware of the benefits of implementing such programs with preschoolers. Several teachers expressed concerns about meeting the expectations of a motor program and preschoolers' challenging behaviors during such programs. Implications for practice from this study include the need to (a) provide professional development to help teachers support preschoolers with disabilities in learning motor skills and understanding how to arrange and scaffold opportunities for children to participate in physical activities and gross motor play with their typically developing peers, and (b) create quality structured motor programs to ensure that all children have access to motor learning opportunities in inclusive preschool settings.

Keywords Physical activity · Preschoolers · Disabilities · Structured motor programs · Teacher · Perceptions

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Physical activity is more than just play and being physically fit. Physical activity involves children's motor, cognitive, social, and emotional development as well as academic achievement (van der Fels et al., 2015). As preschoolers participate in physical activities and gross motor play, they learn how to engage with their environments, they learn about their bodies and the space around them, and they learn to interact with their peers (Favazza et al., 2013). Research has demonstrated that increased physical activity has the potential to induce changes in neural growth and synaptic transmission in the regions of the brain that alter thinking, decision making and behavior, which are tied to executive functioning (Kopp, 2012). Executive functioning skills are crucial for children's adaptive behavior (Chow et al., 2015) and serve as the cornerstone for developing social behaviors across the life span (Clark et al., 2002). All of these developing areas (i.e., motor, cognitive, social emotional, pre-academics) are altered in positive ways when children are physically active (Serpentino, 2011).

Given that physical activity has an enormous impact on child development, the US Department of Health and Human (USDHHS) recommends that preschoolers engage in at least 60 min of structured and 60 min of unstructured physical activity each day (Piercy & Troiano, 2018). They also caution that children should not be sedentary for more than 60 min at a time, except when sleeping, and they encourage teachers to plan multiple opportunities for preschoolers to engage in moderate-to-vigorous physical activity (MVPA) within these 120 min (Beets et al., 2011). These recommendations are supported by the Division for Early Childhood's Recommended Practices (DEC, 2014), which note that the need for educators to provide opportunities for physical activity is critical to improving children's development and health-related fitness. Despite such recommendations, Tucker (2008) reported that only 54% of preschoolers engaged in 60 min of MVPA daily. In fact, many children may meet the guidelines for unstructured physical activity while failing to meet the guidelines for 60 min of structured physical activity (Pate et al., 2004).

Motor Skills of Children with Disabilities

Meeting the recommended guidelines can be particularly challenging for children with disabilities for a number of reasons. First, children with disabilities often experience delays or disabilities related to motor skills (Emck et al., 2012; Van Damme et al., 2015), which can impact their opportunities to participate in physical activities with peers. To participate in physical activities, a certain level of motor skill proficiency is required (Cools et al., 2011; Barnett et al., 2013; Stodden et al., 2008). If children do not have the foundational motor skills (e.g., run, jump, catch, throw), they will have limited opportunities to participate in physical activities (Stodden et al., 2008). Second, children with disabilities are often not included by their typically developing peers in social play, thus their peer interactions often depend on adult support (Odom et al., 2004). Indeed, many children with disabilities depend on direct instruction and frequent opportunities to practice motor skills in order to successfully interact with peers during motor play (Brian & Taunton, 2018; Brian et al., 2017; Green et al., 2009; Marton, 2009; Pan et al., 2009). Third, because motor skills are "building blocks" for many areas of development, delays in early motor development can lead to difficulties in other skill areas such as handwriting (Cahill, 2009), cognitive development and early academic achievement (Fedewa & Ahn, 2011). For these reasons structured physical activity is especially important for children with disabilities so that they can learn important motor skills that will support skill development across domains.

Preschool Years

The preschool years are an ideal time to establish healthy habits and learn new behaviors, for children between ages 3–5 typically experience rapid growth across developmental areas (Hesketh et al., 2017). Given that many preschoolers spend approximately 7 h per day in preschool (Barbosa & Oliveira, 2016), these settings offer an excellent context in which to support physical activity and limit the time children spend being sedentary (Centers for Disease Control [CDC], 2013). However, researchers have noted that a significant portion (50–94%) of a young child's day is predominantly sedentary (Alhassan & Whitt-Glover, 2014; Cheung, 2020), a behavior which likely increased during the COVID-19 pandemic, resulting in negative outcomes in both physical and mental health (Dunton & Wang, 2020; Ricci et al., 2020). For example, children who spend six to eight hours per day in sedentary behaviors are at risk for obesity and other chronic health conditions (Lou, 2014). In fact, the CDC reported that childhood obesity in the United States has doubled in the past 30 years, and current obesity rates reveal that approximately 2 million children under the age of 5 are obese, noting that 70% of children who are obese are more likely to be obese as adults, and they are at increased risk for cardiovascular disease, type 2 diabetes, and some types of cancer (CDC, 2015). Noteworthy, the percentage of children with disabilities who are overweight and obese (40% of children with disabilities) is 17% higher than their typically developing peers (23%) (De et al., 2008).

As previously noted children with disabilities often depend on adults to provide them with opportunities to participate in physical activities and engage with peers (Jeong et al., 2015; Ku et al., 2020). In reality however, opportunities to participate in teacher-led structured physical activities are very limited (Van Cauwenberghes et al., 2013), and most preschool teachers share a common misconception that preschoolers are highly active (Tucker et al., 2014). They also tend to believe that motor skills are not a necessary part of the curriculum because motor skills will develop naturally as a result of free play and recess (Brian et al., 2017). Moreover, given the time constraints in half-day preschools, structured motor activities are often the first things that teachers eliminate when they need to alter their daily schedules (Favazza et al., 2013). Decreased opportunities for intentional instruction and support for physical activity has resulted in many children with disabilities to be less physically active in inclusive preschool settings (Must et al., 2015), yet they need to have frequent opportunities to participate in physical activities where they receive instruction to learn and practice fundamental motor skills.

Fundamental Motor Skills

Fundamental motor skills include object control skills (e.g., throwing, kicking) and locomotor skills (e.g., running, skipping). Fundamental motor skills are considered foundational for more complex skills that are needed for physical activities and sports (Clark & Metcalfe, 2002; Payne & Issacs, 2016; USDHHS, 2016). Young children who have acquired the fundamental motor skills needed to participate in physical activities have increased opportunities to develop peer-related social emotional skills (Favazza et al., 2013) and cognitive skills (Iverson, 2010).

Structured and Unstructured Physical Activities

Physical activity programs are typically characterized as either structured or unstructured (see Table 1). Structured motor programs tend to focus on fundamental motor skills for the preschool population (Vale et al., 2015). Since many fundamental motor skills do not develop naturally or automatically (Logan et al., 2012; Morgan et al., 2013), many children need to be taught and practice these skills (Lai et al., 2014; Robinson, 2011; Robinson et al., 2012). Structured physical activities are typically led by an adult who intentionally plans goals and objectives to teach specific skills (e.g., galloping, striking). This could include carefully selected games or activities that focus on goals or skills (i.e., obstacle course to teach balance, jumping), exercise classes, dance, yoga, and sports such as T-Ball or soccer. Therapies (i.e., occupational therapy, physical therapy) and adapted physical education also are considered structured physical activities led by certified personnel for children with significant motor needs, yet it is notable that

the majority of children with disabilities or those who are at risk for disabilities or delays do not qualify for these motor-related services (Favazza et al., 2013).

Compared to structured physical activities, unstructured physical activities provide children with opportunities to explore and move around in unstructured environments as well as engage with their peers (Palmer et al., 2017). Recess and free play are examples of unstructured physical activities where children determine what they want to do (Chen, 2015). While both recess and free play can provide ample opportunities for students to practice fundamental motor skills, they typically do not include instruction or a structured environment whereby adults promote students' learning of specific motor skills (Robinson, 2011). For example, during unstructured physical activities a 4-year-old with autism might hold a whiffle ball and run around the playground, but not know how to throw underhand or overhand without direct instruction. Sometimes teachers interact with and scaffold children's activity informally during free play, but it is considered unstructured physical activity without goals and objectives focused on learning fundamental motor skills.

While both structured and unstructured activities are recommended for all children, providing structured physical activities is especially important for children with disabilities because adults can guide and support them as they engage in motor activities and as needed, prompt them during interactions with peers (Green et al., 2009). Given the benefits of structured motor programs for children with disabilities, it is important that they have opportunities to learn specific motor skills and achieve national guidelines and standards related to physical activity. However, as noted earlier, few teachers implement structured physical activities in preschool settings. Therefore, exploring teachers'

Table 1 Structured and unstructured physical activities

Structured physical activity	
Definition	A planned movement time designed to provide opportunities to learn fundamental motor skills, utilizing large muscle groups (NASPE, 2010); these are typically led by an adult
Example	Obstacle course
Focus	Have the students move like various animals as they go through an obstacle course (i.e., rabbit, duck, horse, crab, kangaroo)
FMS addressed	Students can walk /jump/hop/gallop as they move through an obstacle course with adult support or a partner, as needed
Visual supports	Have photos of the various animals to show to children
Skills addressed	Vocabulary (e.g., animal's names and movements)
Unstructured physical activity	
Definition	Free play is an unstructured, voluntary, child-initiated activity without teacher instruction. At the beginning of free play, children often establish play groups, sometimes comprised of individual play choices to be with friends or they may choose to play alone
Examples	Swings, slides, child-initiated games of tag, chase, and hide and seek
Focus	Develop children's imagination and creativity while exploring and experiencing their environment. It can support peer interactions, allow children to assume leadership roles, and take the initiative for their own play

perceptions about structured physical activities is crucial as they are in charge of planning and implementing the curriculum, and determining what types of physical activities are offered to preschoolers.

The majority of research in the area of physical activities for preschoolers has focused on the evaluation of specific interventions aimed at helping preschoolers engage in MVPA during the school day (Alhassan et al., 2007; Bower et al., 2008; Dowda et al., 2004; Hannon & Brown, 2008; Oliver et al., 2007; Pate et al., 2008; Raustorp et al., 2012; Reilly, 2010). For example, researchers have investigated physical activity levels in indoor compared to outdoor play (Tandon et al., 2015), as well as between structured physical activities and free play (Chow et al., 2015; Palmer et al., 2017). In addition, qualitative research has focused on teachers' perceptions related to implementing physical activities in childcare settings (Copeland et al., 2012), as well as first-grade teachers' perceptions of the role of play in learning (Ranz-Smith, 2007). Also, De Decker et al. (2013) explored the influencing factors of sedentary behavior in preschool settings by interviewing teachers about their perceptions of the importance of and concerns with implementing a structured motor program in inclusive classrooms. The findings from this study enhance our understanding of teachers' perceptions about structured motor programs and factors that may influence their motivation to implement them. The current exploratory study was guided by three research questions:

1. What are preschool teachers' perceptions about the importance of structured motor programs for children in inclusive classrooms?
2. What types of structured motor activities currently exist in preschool programs?
3. What are preschool teachers' thoughts and concerns about implementing a structured motor program in inclusive classrooms?

Methods

Participants

Seventeen teachers in publicly funded preschools and Head Start programs were recruited as participants for a larger intervention study using flyers, email messages and by word of mouth. This study was approved by the institutional review board. Participants were from two states, Illinois ($n=8$) and Massachusetts ($n=9$). Across the 17 early childhood professionals, 10 were lead teachers while the remaining seven were assistant teachers. For the purpose of this study, they are all referred to as teachers. The majority of participants were female ($n=15$) and White (i.e., 12 White, 3 African

American, and 2 Hispanic/Latino/Other). All teacher participants had recently had experience using a structured motor curriculum in their classrooms. Regarding the 29 preschoolers with disabilities who were enrolled in the 17 teachers' classrooms (and were the focus of data collection in the larger study), their demographic information was as follows: their ages ranged from 3 to 5 years ($M=4.17$), and 69% were boys while 31% were girls. The home languages of these preschoolers were: 90% English, 7% Spanish, and 3% French. Seventy-six percent of the target preschoolers had mild disabilities and 24% had significant disabilities. Examples of disabilities represented in this sample were children with developmental delays, autism, Down syndrome, and speech and language delays or disorders. None of the children were in wheelchairs or used walkers or crutches.

Data Collection

Face-to-face semi-structured interviews were used to explore teachers' perceptions. Semi-structured interviews allowed themes relevant to the study to be uncovered, and they provided flexibility in the question format (Brinkmann & Kvale, 2015). The 17 interviews were conducted individually and took place at teachers' preschool settings. The interviews followed a semi-structured interview protocol, consisting of open-ended questions designed to explore: (a) teachers' thoughts, opinions, or hesitations about implementing a structured motor program; (b) teachers' opinions on the importance of having a structured preschool motor program as a part of their curriculum; and (c) the types of motor and physical activities that students currently participated in during preschool. Three researchers, who were experienced in interviewing conducted all interviews. The interviews were carried out as a conversation between each teacher and interviewer, allowing for follow-up questions to be posed in order to obtain rich descriptions. Before the interviews started, participants were informed that their participation was voluntary, and they were assured that their identity would be handled confidentially when reporting the results. Participants also were told that they could skip any questions without negative consequences. No teachers withdrew from the study and all participants responded to all questions.

Data Analysis

All interviews were audio-recorded and then transcribed verbatim by two graduate assistants with backgrounds in education and psychology. Transcriptions were analyzed by four members of the research team, who had experience working with teachers and children with disabilities. A constant comparative method (Corbin & Strauss, 2015) was used for data analysis. In the first level of analysis, two members of the research team read each transcript independently and

separated the responses into units of analysis. Next, two different members of the research team re-read these units of analysis, coded responses, organized them into categories, and developed definitions for each category. The codes and categories were constantly compared to one another, and were revised until consensus was reached. Finally, two researchers met to develop themes based on the categories.

Results

Three main themes were identified from the data, related to the research questions. These themes are discussed next with relevant quotes included.

Value of Structured Motor Programs

Based on the interview data, all 17 participants believed that structured preschool motor programs are important, and they all identified specific benefits of structured motor programs for children. The majority of participants ($n = 11$) were positive and indicated that structured motor programs are a great way to enhance physical movement and social skills, and support motor skill development. For example, Kate stated, it is a “great opportunity to enhance physical movement and being able to play with peers.” Another participant, Rosemary stated, “During gym time, they [preschoolers] are not learning something developmentally by running around the playground. They [preschoolers] don’t use materials to work on developmental skills, so having a structured program helps.”

Six participants were more neutral when discussing the importance of structured motor programs. These participants noted that structured motor programs were beneficial for preschoolers’ development of motor, social, language, math, and cognitive skills, however they expressed concerns about children missing free play in the gym or outdoors to participate in a structured motor intervention. Missing free play to participate in structured motor programs was especially noted as a concern by teachers in half-day preschool settings. Three participants mentioned that free play is a requirement according to their state regulations. For instance, Jonathon stated, “Intentionally supporting motor skills is important but children are missing free gym time; children are craving the independent time where they are doing what they want.” Two participants indicated that preschoolers already have too much structure during the school day. For example, Keena said, “They (preschoolers) need the structure to learn the activities but they don’t need the structure because they have so much structure during the day; students need some time to be structure-free.” Finally, one participant felt that children obtained more exercise during free play than during structured physical activities.

Motor Activities that Commonly Occur in Preschool

During the interviews, participants were asked about the types of structured motor programs in which their students participated. Almost all teachers reported they did not have a designated motor curriculum. For example, MaryJane said, “[There is] no structured program; [it is our] own creation limited to outdoor recess like tag; indoors would be like videos on [a] screen and dance videos.” None of the participants reported that there was a required structured motor program at their school. Rosemary said, “They [schools] have the gym, playground, and fields, but as a building, they [schools] didn’t ... work on particular skills.” Four participants indicated that the only “planned motor programs” at their schools were an annual field day or periodic assessments of motor skills. For example, Jonathon said, “[we] only take data on motor skills through assessments; games [are] set up multiple times a year to assess students’ motor skills.” Similarly, Fiona stated, “[On the] last day of school each semester [we] will have different motor activities through field and fun days, [we] don’t have [a] motor program but have the checklist to mark if they meet the motor goals.” Keena reported, “Didn’t use a motor curriculum before, but go through goals and target that skill and practice the skills; set up some skills in the gym throughout the week.”

When sharing the specific types of motor activities that children engaged in at their sites, more than half of teachers ($n = 9$) were using YouTube videos and dance CDs for indoor physical activities. For example, Shanika stated, “nothing structured; during recess [I] tried yoga or YouTube videos for stretching.” Similarly, JinHee reported, “No motor curriculum; only gym time or GoNoodle in the classroom; a little bit of yoga.” Caroline said, “CDs...bean bags, hopscotch.” Most of teachers described their typical outdoor activities as free play on the playground or outdoor recess. For example, Danica said “two outdoor playgrounds that have swings, slides, climbing structures, sandbox, water tables, balls, trikes, and other equipment for gross motor play; grass playground where they have races, play ‘Duck-Duck-Goose, [and] Drip-Drip-Squeeze.” Similarly, Jonathon said, “Outdoors we would do a lot of free play and ‘Duck-Duck-Goose,’ parachute play.”

Teachers’ Thoughts and Concerns About Implementing Structured Motor Programs

Reflecting back on their feelings prior to participating in a larger motor intervention study, almost all teachers had positive perceptions about implementing a structured motor program. Teachers reported that they were excited and optimistic about implementing a motor program, which was a new experience for them in terms of the content and materials. They believed that it would be a good opportunity for

their students. JinHee said “Great idea for kids because it incorporates sports and is a bit more organized than having kids just run around in the gym.” Rosemary stated “I don’t know that we get enough structured motor play. [I am] excited to have a systematic way to present something different in the materials and skills.”

Besides feeling positive about implementing a new structured motor program, nine teachers expressed some concerns about such an endeavor. Three participants pointed out that they worried about preschoolers’ abilities to follow directions and how to keep students engaged throughout the structured motor activities. They also worried about whether their students would like a structured motor program. MaryJane said “[We] never had this [a structured motor program] before; [I am] concerned they’d just stand and do nothing.” Six participants expressed concern about feeling pressure to “follow” a structured motor program and implement it correctly, and the extra time and work involved in learning a new curriculum. MaryJane mentioned “[It is] challenging for me to lead a structured motor program and learn a new curriculum on top of other curricula; I like to know what I’m doing so I would spend hours trying to learn each unit on top of other curricula.”

Three participants mentioned that structured motor programs work better when implemented in an indoor gym as opposed to unstructured motor activities. In essence, teachers felt that it was difficult for children to have free play indoors, whereas a structured motor program can provide an alternative way for children to practice gross motor skills indoors. When the weather is cold and children cannot be outdoors or on a playground for free play, participants felt that having a structured motor program that could be implemented indoors was ideal as it allowed children to be active in a controlled setting. MaryJane stated “[I] can see where [a] structured [program] is a positive, especially during cold weather where inside space is limited.” Another participant pointed out that a motor curriculum should be designed and implemented in both indoor and outdoor environments, for in one of the targeted states, gross motor activities are required to take place outdoors whenever the weather permits (Illinois State Board of Education, 2017). State guidelines recommend that children have physical activities outdoors when the weather is between 25 and 90 degrees. Rosemary said “[The] state requires outside time when it is at least 25 degrees, for 25 min a day, so how to adapt it [motor program] to [an] outside playground? [We need] flexibility in [the] location of activities.” Some participants had suggestions for the length of time devoted to a structured motor curriculum. For example, three participants thought that a 30-min structured motor program was too long for preschoolers, and that twice a week is too often to fit into an already demanding classroom schedule. For instance

Danica said, “30 min [is] too long; [a] shorter amount of time, 10–15 min, would be fine and maybe once a week.”

Discussion

The purpose of this exploratory study was to investigate teachers’ perceptions surrounding the implementation of a structured motor program in inclusive classrooms. First, the results indicate that teachers recognized the value of structured motor programs, which is consistent with previous literature (e.g., Kibbe et al., 2011; Mahar, 2011). Participants described multiple benefits to implementing a structured motor program, revealing that they understood the importance of providing direct and intentional gross motor instruction to preschoolers. However, most teachers were concerned that structured motor programs would replace free play, and they believed that students were more active during free play compared to during adult directed motor activities. No teachers mentioned that children needed exposure to both structured and unstructured motor activities or expressed an awareness of the national guidelines about the level of physical activity recommended for preschoolers.

Free Play and Structured Motor Activities

Providing time for free play or unstructured play supports children’s cognitive, social emotional and motor development; however, it is important for staff to stay engaged and provide support and encouragement when students need it (Bower et al., 2008). A meta-analysis by Tandon et al. (2015) suggested that child-initiated free play in both indoor or outdoor settings resulted in less sedentary and more MVPA when compared with structured motor play that was offered for 9 min or less throughout the day. On the other hand, research has shown that children are significantly more active, as measured using pedometers, during structured physical activities or when staff join children in active play (Bell et al., 2015). Additionally, researchers observed that on days when physical activities were integrated into the curriculum and delivered by educators, children spent less time being sedentary and more time in MVPA than on days without structured activities (Van Cauwenberghe et al., 2013). Moreover Arundell et al. (2016) found that children spent 15.5 min of a 30-min period engaged in less challenging behaviors than children on the playground with no guidance or instruction. Thus, structured motor programs may facilitate preschoolers’ engagement in physical activity and reduce challenging behaviors thereby reflecting two outcomes that are especially relevant for children with disabilities.

The Institute of Medicine (IOM, 2011) notes the importance of providing a combination of developmentally

appropriate structured *and* unstructured physical activity opportunities for preschoolers. Therefore, it is not recommended that outdoor free play be replaced by structured motor programs, but rather that both types of activities are available to young children. Simply put, both types of programming are valued and recommended to meet the needs of all children. Structured motor programs provide opportunities for children to learn fundamental motor skills, and they can support interactions between children with and without disabilities (Palmer et al., 2017). Most teachers in the current study saw the value of structured motor programs, yet they needed assistance in redesigning their demanding curricular schedule to include both unstructured and structured motor activities for children with disabilities.

Professional Training

Teachers' knowledge about structured motor programs has a direct effect on their motivation to implement such programs. Almost all teachers in the current study were positive about implementing structured motor programs, but they worried about their ability to meet curriculum expectations and engage their students with a range of abilities in structured motor activities. Teachers' knowledge and beliefs may be one of the key determinants of children's motor curriculum (Ward, 2008). If teachers are not confident in their ability to lead such activities (i.e., they have limited training or a low sense of self-efficacy), the effectiveness of a structured motor program may be negatively impacted, thus effecting children's outcomes. Participant concerns in this study are consistent with previous research which revealed that teachers do not feel prepared to design and implement structured motor programs because of inadequate professional development training focused on motor development and/or structured motor programs (Gehris et al., 2015; Robinson et al., 2012). This has resulted in many teachers lacking the confidence to implement structured motor activities. Pre-service training and in-service professional development can support future and current teachers in obtaining the knowledge and skills needed to implement motor activities in their early childhood classrooms.

While early childhood educators often question their ability to implement structured motor programs, many believe that professional development is an effective way to gain the knowledge needed to incorporate motor activities into their curricula (Robinson et al., 2012). It is crucial that educators understand why this developmental domain is important and how they can embed new ideas into their daily classroom routines. Given that teachers have limited time and resources to attend trainings and conferences, more content in this area may be needed at the pre-service level (i.e., in college coursework), and opportunities for professional development on motor skills must be both accessible and economical to

meet the needs of a large number of educators (Mwonga & Wanyama, 2012).

Quality Structured Motor Programs

All of the teachers in this study indicated that they do not have or use a published research-informed motor curriculum. Teachers believed that structured physical activities need to be developmentally appropriate for preschoolers in inclusive classroom. Given that one in six children (17.8%) had a developmental disability in 2017 (Zablotsky et al., 2019), there is a need to ensure that structured motor programs are appropriate so all children have access to all learning opportunities, activities, and environments (Cunconan-Lahr, 2006), thereby supporting meaningful inclusive programming for *all* children (DEC/NAEYC, 2009).

Limitations and Future Research

Although this study contributes to the early childhood and early childhood special education literature regarding teachers' perceptions about structured motor programs, several limitations should be taken into consideration while interpreting the findings. First, only a small sample of 17 early childhood educators served as participants, which limits the generalizability of the findings, and because the data on teachers' perceptions were based on self-report and they had participated in a larger intervention study, they might be biased. Future research should include a larger and more diverse sample to minimize bias. Second, future research could address which type of motor program (structured versus unstructured) teachers are comfortable implementing and why. This could then be used to guide professional development offerings. Third, researchers could gather in-depth information from participants using a multiple interview approach. In the current study only one interview was conducted with each participant due to time constraints. Future research should include multiple interviews to obtain comprehensive information on teachers' perspectives (i.e., before and after implementing a structured motor program).

Implications and Conclusion

This study shows that early childhood teachers have positive perceptions about implementing structured motor programs and the potential benefits such programs can have for preschoolers (i.e., more time engaged in MVPA). Also, the findings from this exploratory study have implications for directors, teachers, and professional development providers. Directors can use these data to better understand preschool teachers' perceptions and concerns about implementing

structured motor programs. Directors also could support teachers by offering professional development on embedding structured motor play into their lessons and finding ways to integrate curricular goals into motor programs to accommodate an already demanding schedule. Teachers can benefit from these results by understanding the positive outcomes of implementing structured motor programs with children with disabilities, and they may become motivated to include structured motor activities into their lessons and classroom routines. Those involved in professional development and teacher education (higher education faculty, district leaders) can use these data as they develop trainings that focus on structured motor activities and programs. Understanding teachers' thoughts and concerns about structured motor programs can support the design of professional development offerings that address practical issues associated with structured motor programs in early childhood settings.

The results of this study coupled with findings from previous research and the current realities of preschool education highlight several factors that may negatively impact children unless future directions for practice and research are addressed. There is a lack of professional training that helps teachers become knowledgeable and confident in supporting physical activity and motor development in preschoolers with disabilities; this needs to be addressed at the pre-service and in-service level. The national guidelines are clear in their recommendations for a significant amount of daily structured and unstructured physical activity for preschoolers. It is critical that schools examine the logistics of half-day programs that do not allow for more programming given time constraints, especially in the face of a growing obesity issue among preschoolers and programmatic needs for children with disabilities requiring a more intentional focus on physical activities. As more children with disabilities are in inclusive preschool classrooms, there is a national call by leading professional organizations to provide research-based programs that ensure that *all children* have access to learning opportunities across all developmental domains. Findings from the current study reveal that teachers have limited knowledge of and use of research-based structured motor programs, indicating a need for such programs. The lack of physical activity in young children has been exacerbated by the global COVID-19 pandemic which has resulted in children becoming even more sedentary. All of these challenges point to the need for curricular changes as preschoolers return back to school.

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