Challenges and Strategies for Physical Education Teachers Working with Students on the Autism Spectrum

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Abstract

The context of this paper is set within my learning journey as an educator and student in the Master of Education program. During my career, I have taught Health and Physical Education to many students, including those on the autism spectrum. My passion for both physical and inclusive education has given me the insight and the desire to improve my practice. I have noticed that some students on the autism spectrum do not participate fully in health and physical education classes. Through my career, I have come to realize the importance of safe, fun, and engaging physical education experience for all students. Teachers need to understand autism spectrum disorder to teach students on the autism spectrum effectively. Designing and implementing a variety of strategies creates effective and positive learning experiences. The teacher's educational philosophy centered on an ethic of care and inclusive practices, further enables the social, emotional, and physical growth of all students. Teachers have a significant responsibility to create a positive, caring, and inclusive learning environment to fully support the social, emotional, and physical development of their students on the autism spectrum. Social and emotional skills are tightly linked to the learning and physical development of students in physical education class. This paper is written for educators who want to create inclusive, caring, and positive educational environments, starting with their own philosophy of education, curriculum, strategies, and interventions to allow for students' success. Creating intentional and meaningful learning environments will allow for the growth and development of all students, including those on the autism spectrum.

Keywords: Autism spectrum disorder, inclusive, physical education, educational philosophy, social and emotional skills

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References

Chapter 1: Introduction

My Learning Journey

The context of this paper is set within my learning journey as an educator and student in the Master of Education program. Over the past six years, I have taught Health and Physical Education to many students, including those with a variety of additional needs. I have experienced a variety of challenges, tried multiple strategies, and seen various levels of success in my practice. These experiences have driven my passion for both physical and inclusive education. They have given me the insight and the desire to improve my practice, ensuring I meet the needs of all my students. Reading literature and completing a variety of courses during my Master of Education has impacted my learning and professional journey. History and philosophy of education had a significant impact on solidifying my educational philosophy and driving my paper towards inclusive education. Research methods allowed me to review literature around autism spectrum disorder in the physical education setting. My learning journey has connected directly to my personal practice and educational philosophy. Creating a deep desire to learn how to improve my practice through literature review, coursework, and professional development.

Personal Experiences and my Philosophy of Education

Throughout my time as a teacher, I have noticed that some students on the autism spectrum do not participate fully in health and physical education classes. I have observed that students on the autism spectrum go through many challenges in this stimulating and fast paced environment. Through my experiences, I have come to realize the importance of safe, fun, and engaging physical education for students on the autism spectrum. However, in addition to

student challenges, teachers are faced with many struggles simultaneously. Teachers are required to develop a sound teaching philosophy, passion, and ethic to create relationships, structures, and educational environments to allow their students to thrive. The educational philosophy of an ethic of care and inclusive practices allow for student social and emotional development during their educational journey. Teachers have a significant responsibility to create a positive, caring, and inclusive learning environment to fully support the social, emotional, and physical development of their students. The development and implementation of nurturing and caring learning environments creates an atmosphere for student success, particularly for those on the autism spectrum. Additionally, inclusive environments allow for the maturing of social and emotional skills, critical for achieving personal classroom goals. Social and emotional skills are tightly linked to the learning and physical development of students in physical education class. This paper is set within the ideas that if we want to create inclusive, caring, and positive educational environments, we must start with our own philosophy of education, and develop curriculum, strategies, and interventions to allow for students' success. Creating these learning environments will permit for the growth and development of all students, particularly those on the autism spectrum. My educational philosophy and teaching experiences led me to developing a passion for students on the autism spectrum. This, and my passion for physical education created a desire to further educate myself in these areas.

Development of my Topic

Throughout my learning journey, many courses and articles have emphasized the importance of inclusive and caring education. In this paper, I will argue for this pedagogical

philosophy for a variety of reasons. Notably, about 83% of students with autism spectrum disorders (ASD) struggle with age-appropriate motor tasks, which becomes the barrier for them to reach the physical education curriculum (Ruggeri et al., 2020). Further studies have noted that social and emotional learning (SEL) competencies, such as relationship skills and selfregulation, taught in the classroom are associated with positive outcomes for youth and have been shown to translate to other settings (Wright et al., 2021). Social and emotional skills (SEL) are imperative learning goals for all students, particularly those with autism spectrum disorder. Several studies have demonstrated that social-communicative behaviour deficits can negatively impact several development aspects, including emotions, peer relationship and overall quality of life (Lee & Vargo, 2017). Students with ASD could learn a variety of social skills with the correct instructional modifications and parameters in place. Educators could focus activities to increase social-communicative behaviours by providing the students opportunities for proper introductions and goodbyes, working collaboratively during activities, developing leadership opportunities, and giving feedback to one another's performance (Lee & Vargo, 2017). Although these learning objectives are clearly important, how are we meant implement these practices? Who is responsible for ensuring that we have a safe and inclusive educational setting? These questions guided my thinking and learning journey, fueling my desire to learn and develop my argument for this paper. Furthermore, the development of this topic has additionally influenced my daily educational practice.

Presenting My Argument

Although there could be a variety of solutions and contentions to these questions, my paper argues that the implementation of a caring and inclusive educational practice is the

responsibility of the physical educator. The onus is on the teacher to ensure they are creating inclusive and caring teaching environments to provide students on the autism spectrum an enriching physical, social and emotional educational experience. The physical educator should work in conjunction with the classroom and learning resource teachers, the parents or guardians and the student, to develop positive relationships and successful physical education experiences for students on the autism spectrum.

Summary

This paper will begin with a literature review on inclusive education in the health and physical education class. It will explain autism spectrum disorder and a variety of challenges faced by students and teachers in health and physical education class. These challenges will be presented from both the educator and student perspective, and include self-regulation, social and emotional skills, and gross motor challenges. Next, the paper will discuss teacher roles, ethics, and responsibilities for creating inclusive educational classrooms. From there, a variety of strategies, experiences and suggestions will be written to promote teacher efficacy and interest in this important pedagogical area. Finally, the paper will conclude with a summary and the implications of my learning, with suggestions for further study.

Chapter 2: Literature Review

Autism spectrum disorder overview

Autism spectrum disorders (ASD) is a neurological developmental disorder that affects how people interact with others, behave, and communicate (U.S. Department of Health and Human Services, (n.d.). Many of the challenges faced by students on the autism spectrum are caused by neurological differences. For example, students on the autism spectrum may

experience difficulties with social skills, verbal and nonverbal communication and may demonstrate repetitive behaviours (Autism Speaks, (n.d.)). About 83% of students with autism spectrum disorders struggle with age-appropriate motor tasks (Ruggeri et al., 2020). The combination of motor, sensory and generalizing skills needed for success in physical education, make gym class a problematic environment for neurodiverse students. Understanding ASD will provide educators the opportunity to make the appropriate adaptations in physical education. Offering appropriate adaptations and strategies, to meet the needs of students with ASD is essential to creating an inclusive and dynamic educational environment for all students. Without changes in practice, students with ASD will continue to have difficulty attaining age-appropriate gross motor skills and meeting their maximum ability in this curricular area.

Challenges in Health and Physical Education

The literature on the topic of supporting children with ASD in the physical education classroom is limited. As the autism spectrum is diverse, the research around this subject is extensive in a wide variety of areas but is restricted in the physical education setting. The research examined discusses the causes of behavioural issues and the importance of intervention and strategies to assist students with ASD in physical education. Social and emotional learning competencies, such as relationship skills and self-regulation that are taught in the classroom are associated with positive outcomes for youths. Additionally, they have been shown to translate to other settings (Wright et al., 2021). When researching the literature around autism spectrum disorder and social emotional learning, many articles examine a variety of related areas, with implications for educators and researchers. The common research

areas are understanding student behaviour, sensory and motor challenges, socialization, and generalizing PE skills to other environments.

Teacher Roles and Responsibilities for Creating Caring and Inclusive Learning Environments to Promote Learning for Students on the Autism Spectrum

Teachers are responsible for the well-being of their students and creating a positive sand safe learning environment is critical for students on the autism spectrum. Nel Noddings wrote of the importance of creating a safe and caring school environments, this permits the students to feel a sense of belonging (Noddings, 2005). Students with ASD can struggle to connect with their teachers, particularly if teachers do not create a safe environment and cultivate rapport with them. Developing a genuine dialogue is one strategy suggested for creating a caring and inclusive educational environment. Noddings continues suggesting, that the dialogue between students and teachers is open-ended, genuine and neither party knows what the outcome of the conversation will be (p.23). Furthermore, dialogue allows the teachers and students to connect, develop and maintain caring relations over the course of the students' educational journey (Noddings, 2005). The continuity of physical education specialists can be utilized as an excellent opportunity for relationship building between student and teacher, however further study on the benefits of continuity between teacher and students on the autism spectrum is needed.

School-based social interventions have been effective in improving social outcomes for students with ASD in inclusive settings (Dean & Chang, 2021). Meaning that students on the autism spectrum, greatly benefit from inclusive practice. Some indicators of student achievement are greater participation, enjoyment, and improved motor skills. As educators, we

have a responsibility to deepen our education around ASD and develop inclusive and caring practices to benefit our students on the autism spectrum.

Strategies and Applications of Literature into Teaching Practice

Physical education is a challenging environment for students on the autism spectrum and teacher practices can have a significant impact on the experience of those students. One primary area of concern was reviewed by Lee and Haegele (2016). They wrote that physical education is one of the most challenging educational contexts for students with ASD because of considerable stimuli in the gymnasium. More than 90% of children with ASD possess hypohypersensitivity to sensory stimuli (Weiner & Grenier, 2020), leading to many challenges in physical education class. Hypo-hypersensitivity is a significant issue in the gymnasium due to the nature of physical education activities. Many sports, games, and activities are fast paced, with loud noises and other external stimuli can greatly impact those with hypo-hypersensitivity. Lee and Haegele (2016) write that sensory overload has a substantial impact on the learning of students with ASD in physical education class. This can manifest into behavioural, social, or motivational issues for the students, negatively impacting their relationship with physical activity. To combat sensory overload, the teacher may use introductions to new environments or equipment, maintaining noise levels within the gymnasium, and developing an understanding of the different sensory inputs that could impact student attention or behaviour (Lee & Haegele, 2016). These strategies are supported and added onto by Weiner and Grenier (2020), as they provide knowledge on the impact of the sensory system on students with ASD and offers strategies that can support them. Some suggestions involve using calming music and voice during lessons, using visual supports, and providing a variety of seating options (Weiner & Grenier, 2020). These strategies noted good results for the staff and students involved in the study. The literature on sensory input and challenges for students with ASD in physical education contains many strategies to assist teachers and their students, however, this is only one aspect of challenge for students with ASD in physical education class.

Children with ASD are known to have delays and deficits with gross motor skills (Case et al., 2019), which may limit participation in the activities to support the development of ageappropriate social, communication, behavioural, and cognitive skills (Ruggeri et al., 2020). These delays can impact on the student's motivation to perform during gross motor assessment activities, and motivation is an important part of an accurate assessment (Case et al., 2019). Further understanding of the motivators and reasons for gross motor challenges is imperative for working with students with ASD, to enable them to reach the goals of SEL in the physical education setting. Without the foundation of motivation, students may not participate fully or at their standard skill level (Case et al., 2019). Developing motivational strategies is imperative for the child to feel success during motor skill assessments (Case et al., 2019). Some strategies that allow the students to improve motivation are, incorporating student voice and choice and utilizing student interest during assessments (Case et al., 2019). The articles provide some framework for assisting students with ASD in transferring skills and developing motivation through gross motor challenges. The findings of a 2017 study (Lee & Vargo) also found that motor-skill delays may result in challenges related to physical activity participation, such as low motivation, poor gait, and behaviour problems. Although suggestions are made to combat these behaviours, Ruggeri et al., (2020), concluded that the overall quality of the evidence to support specific motor skills outcomes for students with ASD is low. While evidence and studies

are accumulating in number, more specific and rigorous protocols and research is required to truly gain a deeper understanding of gross motor skills of students with ASD. In conjunction with gross motor and sensory challenges, students with ASD also struggle with social and emotional skills.

Social and emotional skills (SEL) are imperative learning goals for all students, particularly those on the autism spectrum. Several studies have demonstrated that socialcommunicative behaviour deficits can negatively impact several development aspects, including emotions, peer relationship and overall quality of life (Lee & Vargo, 2017). Evidence of, and recommendations, for physical activity interventions for children with ASD exist; however, the use of these interventions to develop social-communicative behaviours has been limited (Lee & Vargo, 2017). Students with ASD could learn a variety of social skills with the correct instructional modifications and parameters in place. Educators could focus activities to increase social-communicative behaviours by providing the students opportunities for proper introductions and goodbyes, working collaboratively during activities, developing leadership opportunities, and give feedback to one another's performance (Lee & Vargo, 2017). These ideas fit closely with a 2019 article that suggests physical education is a great place to teach, reinforce and practice these skills, particularly through the inherent structure of cooperative learning (Grenier & Yeaton). This facilitated structure of cooperative learning is naturally conducive for practicing and developing social and emotional skills. Furthermore, the article suggests that using cooperative learning strategies in physical education meant that students with ASD relied less on the support of their paraprofessionals (Grenier & Yeaton, 2019). Teaching good listening skills was vital for the success of the cooperative learning instructional

strategy. This included, ensuring your body was facing the speaker, having their brain engaged, focused, and listening "in the moment" (Grenier & Yeaton, 2019). These skills allowed the students to engage in collaborative activities to complete assigned tasks. Therefore, a movement-based social skills program can help children with ASD develop social-communicative behaviours through direction interactions with their peers (Lee & Vargo, 2017). Additionally, there is a consensus that physical education can promote these skills and generalize them to other settings (Wright et al., 2021). These skills are important for students with ASD to develop and generalize across all learning and social activities, however, little research has been conducted on strategies to generalize physical education skills for students with ASD.

A 2019 article discusses one barrier to physical activity participation for children with ASD is the difficulty in generalizing physical education skills learned in school into other environments (Holland et al., 2019). Some of the reasons that students struggle to generalize the physical education skills are, poor stimulus control, insufficient reinforcement, and poor motivation (Holland et al., 2019). One suggestion for overcoming generalization struggles is to assigned PE homework to students, allowing them to practice the skills in an environment outside of class (Holland et al., 2019). Another common theme for success is active communication with parents. One example of how this could be beneficial is that parents should be made aware of the activities and skills developed in class, to reinforce the learning in other settings (Holland et al., 2019). Generalizing motor skills is only one aspect of learning that can be added to physical education, in addition, curriculum should focus on social and emotional skills. Curriculum focused on social and emotional skills plays a significant role of the

development of the child. Learning to generalize these skills from the classroom to physical education and into daily life is crucial for students on the autism spectrum. These skills can provide the students with improvements in all aspects of life. Significant impacts have been shown in academic, social, emotional, and physical development, providing the students the opportunity to thrive and generalize skills in all walks of life. While social and emotional skills are believed to promote healthy development, academic success, and the ability to thrive in society (Wright et al., 2021), further research and strategies are required to assist the involved stakeholders.

Chapter 3: Application in Teacher Setting

Experiences in My Teaching Career

My educational journey has been centered around health and physical education. For the past six years I have been teaching in a small elementary school in Vancouver. In this context, I have taught Kindergarten to Grade Seven health and physical education. The students come from a variety of backgrounds, including First Nations. Within my teaching experience, I have taught a variety of students with additional needs, including those on the autism spectrum. A gymnasium provides the perfect storm for students on the autism spectrum as it is an area with high sensory input, gross-motor, and social and emotional challenges. I have witnessed these challenges firsthand, and this made me think to myself, what am I doing wrong? Why is my teaching causing behavioural issues with my students on the autism spectrum? These questions led to my interest around developing teaching strategies to offset the challenges of autism spectrum disorder in the physical education setting.

The Context and setting

The context for the strategies I will be proposing is a single streamed, small, independent elementary school. The school consists of 199 students and 25 staff members. The school has a well-established sense of community, and the students are generally happy, friendly, and capable. In addition, the school is located on Vancouver's west side, which is described as an upper-middle class socio-economic neighbourhood. Furthermore, we have students from the Musqueam First Nation, who are all essential members of our thriving community. The small nature of the school community allows for the creation of good working relationships with staff, students, and parents. Creating and maintaining relationships allows for deeper connection and understanding, allowing all parties to feel safe and comfortable in the educational context. These relationships create a feeling of security and allow for the teacher and student to understand each other through continuity and regular connections. This allows me the opportunity to implement a variety of strategies to the challenges experienced by my students on the autism spectrum. The school has a good sized, elementary school gym, with ample materials and space for good teaching practice and student safety. In the next section, I will discuss some of the challenges for my students on the autism spectrum and strategies to rise above them.

Challenges and Strategies

Students on the autism spectrum can be faced with a multitude of adversity in physical education class. One of the primary complications my students have faced is social and emotional regulation in Physical Education class. Students on the autism spectrum have social-communicative behaviour deficits that can have a negative impact on their peer relationships (Lee & Vargo, 2017). A strategy for overcoming emotional regulation is teaching the students to

improve self-regulations through a social and emotional curriculum. Kuypers & Winner, 2021, note that the Zones of Regulation is a framework and easy-to-use curriculum for teaching students a variety of strategies for emotional and sensory self-management. The program uses four colours to help students identify how they are feeling in each moment, as well as strategies to support regulation (Kuypers & Winner, 2021). The strategies in the curriculum are foundational for students' learning, as emotional regulation allows them to thrive in a variety of settings as they are emotional ready to learn. Having a self-regulation curriculum used across the grades allows for continuity and consistency for students on the autism spectrum. This consistency feeds through all learning channels in the school, from the classroom, specialist, administrative team, and parents. This consistency is very effective as the students were able to apply their learning of the curriculum, to a variety of settings in school. I found that using a selfregulation and emotional curriculum had significant positive impacts on the experience in physical education for my students on the autism spectrum as they were able to understand their emotions. Additionally, the staff noticed significant improvements of emotional regulation in all settings of the school, including recess, music, and the classrooms. Self-regulation, social and emotional skills are crucial teaching points for students on the autism spectrum. These interventions have positive impacts on the experience and learning for students on the autism spectrum as a natural understanding of emotion can be difficult for neurodiverse students. While emotional regulation for students on the autism spectrum may be the first challenge to overcome in physical education, using a self-regulation curriculum like The Zones of Regulation by Kuypers & Winner, 2021, can lead to considerable success for students on the autism spectrum. As emotional regulation is one of the primary concerns for physical educators while

working with students on the autism spectrum, gross motor skills are also an area of considerable challenge.

Children with ASD are known to have delays and deficits with gross motor skills (Case et al., 2019), which may limit participation in the activities to support the development of ageappropriate social, communication, behavioural, and cognitive skills (Ruggeri et al., 2020). These challenges can have significant impact on their participation, enjoyment, and selfregulation during physical education class. As educators, it is our responsibility to teach the curriculum to our students and develop their gross motor skills to create physically literate individuals. Students on the autism spectrum, may have challenges with gross motor and the cognitive challenges of sport related skills. In my experience, there are a variety of strategies to help my students on the autism spectrum rise above these adversities. The foundation for the implementation of these supports is built upon the previous strategy of self-regulation and social and emotional learning. Once the child on the autism spectrum, has learned selfregulation skills, developing gross motor skills becomes less difficult. In my experience, creating a classroom environment where improvement and process over results, can help students maintain motivation. Creating this environment occurs through the language and discussions I have with my students. I spend ample time explaining that some skills can come more easily to some students than others, and that is okay. We all learn different things at different paces. In addition, my students are required to encourage, say positive comments, and support one another in the gym. Creating a culture of learning and encouraging each other, allows the students with gross motor challenges to feel supported and confident in their learning. Teaching students to see mistakes as learning opportunities, rather than failure, is a key aspect

to the physical education culture. These teaching strategies create an environment of safety and comfort for the students. Then, once the culture is established, the students can become coachable, meaning they are able to take feedback from a teacher, and apply it to their skill development. In my experience, this mindset and classroom culture, allows students on the autism spectrum to develop their gross motor skills more efficiently and effectively.

Encouraging the student to try their best, engage in the activity and develop physical literacy.

Finally, the teacher and/or paraprofessional need to spend extra time, teaching the skills to the students who need support. Giving one on one support to those students, can create a stronger relationship with the student and help to develop their skills more efficiently. These strategies are not easily done, and require effort, time, and patience from educators. However, I found that these strategies are essential for teaching physical education to students on the autism spectrum.

Provoking teachers in Physical Education

Creating a safe and positive learning environment is the deepest core of my teaching philosophy. This means, knowing my students on a personal level, developing relationships with them, to create a safe place for their students to learn in. This ethic of care allows the students to thrive in an environment where routines and expectations are known by both teacher and student. When expectations are clear, the teachers are demonstrating care, and the students feel comfort and stability. Nel Noddings, 2005, wrote that the singles biggest complaint heard by students is that their teachers simply do not care. This is an alarming finding as feeling cared for has a significant impact on the emotional and behavioural feeling and actions of students. Creating an ethic of care is the greatest strategy a teacher can use to overcome challenges in

the classroom, particularly for their most vulnerable students. One benchmark I use to see if my practice is reaching all my students is to see the behavioral and physical progress of my students who are on the autism spectrum. If students are struggling to learn a new skill, it is my job to ensure they feel valued, and to help them learn the skill. Through the teaching of emotional regulation, students can develop skills more easily as they get less frustrated and continue to be motivated to learn. As physical educators, it is always easier to focus on the students who are strong athletes, or who are better behaved. My philosophy is to emphasize my practice on the students on the autism spectrum, and to focus on the growth of those students. If those students can reach the physical education curriculum, then all students will. Through many instances of trial and error. I have been able to apply an ethic of care, granting my students on the autism spectrum a safe space to learn and grow with their peers.

The strategies written are designed to challenge and push physical educators to improve their practice, provoke their thinking and instill a motivation and passion for teaching all students in the physical education setting. As a fellow physical educator, I know the many difficulties and pressures of this job. It is imperative that physical educators care for their students. Designing programs, curriculum and lessons that enable their students to feel confident and happy during physical education class. The development of these programs will lead to lifelong athletic, social, and emotionally regulated people, who are valuable and caring members of our society. The lessons students learn in physical education can be transformational. If teachers design their teaching around these suggestions, students with autism spectrum disorder will feel cared for, respected, and can thrive in these settings. The onus is on the individual teacher, to adapt practices, move towards a well-rounded curriculum

and to develop an inclusive and caring learning community. The teacher should emphasize their teaching practice to universally reach the needs of their students. Implementing strategies for students on the autism spectrum, can universally benefit all students in physical education class. What will you do to ensure all your students feel cared for, have a positive experience, and become lifelong athletes?

Chapter 4: Conclusion

Summary

As I conclude this paper on the discussion of my academic experience, there may be some queries. I am convinced that the onus is on the physical education teacher to ensure their teaching practice meets the social, emotional, and physical needs of their students on the autism spectrum. It is the responsibility of the teacher to adjust their philosophical, and practical teaching methods to develop lessons and curriculum that evoke a feeling of confidence and value to their students. Further enabling the students to feel successful, develop skills and increase their participation in all physical education activities.

This paper outlines the challenges faced by students on the autism spectrum in physical education class. In the first chapter, I discuss my personal experiences and educational journey that has led me to developing this writing topic. The context of the paper is also written, so the reader understands the setting and application of the information. Additionally in chapter one, I present my topic and argument for discussion and the process this paper will take. In the second chapter, an overview of autism spectrum disorder is presented. This summary creates a baseline understanding of ASD and its mechanisms for the reader. Then, the challenges for students on the autism spectrum in physical education class are discussed. These challenges are

supported through literature and my personal experiences. Next, the chapter presents strategies and interventions for the teacher, to improve inclusion and the learning experience for the students on the autism spectrum. Finally, in chapter three, a practical application is provided through the lens of my learning and professional experiences. The three chapters provide the reader with a clear understanding of the argument, the implications, and the strategies to provide and inclusive and caring physical education class.

The strategies and applications provide the reader with the necessary tools to overcome the difficulties experienced by both student and teacher in the physical education setting. This paper provides a multitude of scholarly literature that reinforces the need for intervention and good teaching practice for students on the autism spectrum. In addition, the literature and application should provoke the readers interest in further study on this topic and the application of the strategies, and implementation of an ethic of care for student learning.

The paper provides the reader the opportunity to understand, develop and implement teaching methods for students on the autism spectrum. The development, rationale, and explanation of the argument, leaves the reader with no qualms to overcome the challenges of teaching students on the autism spectrum in the physical education setting. The paper puts the responsibility on the individual teacher to effectively provide meaningful and adapted teaching practice to promote inclusion and success in physical education for students on the autism spectrum. This paper could change the perspectives, methods, and abilities of teachers in the elementary physical education setting. Implementation of these methods would improve the physical education experience for students on the autism spectrum, increasing inclusion and participation.

Implications

This paper acknowledges and supports the importance of developing physical education teaching philosophies and practices that benefit students on the autism spectrum. This argument poses significant questions for educators about their personal practice. Furthermore, this paper could entice teachers to further research universal design for learning in their lessons and unit planning, to reach their students on the autism spectrum. In addition, policy makers, administrative teams, and educational consultants could look at the development of programs, and curriculum to ensure the needs of all students are being met. Implementing an ethic of care, universal design, and the discussed teaching strategies should be the foundation of elementary education. Further allowing the next generation of students to have confidence, success, and feel valued in their respective communities.

Additional research on autism spectrum disorder and implication for students in physical education class is needed to ensure educators are informed on the best practices and latest developments of research. More research on social and emotional learning, gross motor challenges and behavioural interventions will provide educators with a better framework for improving their practice. It is without any qualms, that the responsibility of physical education teachers is to provide a safe, caring, and inclusive teaching environment to provide students on the autism spectrum with a positive physical education experience.

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