



Physical Education and DCD

Information for Educators

While most PE teachers have little to no knowledge of Developmental Coordination Disorder (DCD) or dyspraxia, they can no doubt describe many children at the lower end of the skill spectrum who perhaps, upon reflection, would likely meet the criteria for DCD.

Challenges faced in PE by a child with DCD

DCD is, by definition, a motor skill disorder and as such, participation in PE class can present many challenges for a child with DCD. The movement activities they are required to perform are often complex (e.g. running, hopping, jumping, catching, throwing, kicking) and the environment is such that they are frequently required to attempt these skills while being watched by their peers. They are typically much slower to acquire skills, have difficulty adapting or transferring them, and can seemingly acquire a skill only to lose it again in the next class.

It can also be confusing for teachers because some children with DCD may perform very well in some sports or settings, but well below average in others.

Children with DCD are at an increased risk of physical inactivity

Young children with DCD are usually keen to be involved in PE classes, but repeated failures and judgement and ridicule from their peers erodes their perceived competence and self-efficacy in the physical domain [1]. This leads to withdrawal from activity, both structured and free-play, and places them in a negative loop where less exposure means less opportunity to develop, further decreasing their self-efficacy.

This withdrawal from physical activity affects the physical health of children with DCD, impacting their body composition, cardiorespiratory fitness, muscle strength and endurance, anaerobic capacity and power [2].

Children with DCD need to experience success early and often

Research has shown that perceived inadequacy in physical activity is the biggest contributor to the child with DCD's lack of enjoyment in PE [1]. Early and continued success can prevent children with DCD from entering this negative space. It requires teachers to work to a child's strengths, adapt tasks where necessary, and provide a greater level of support. **It is important to realise that without these accommodations, a child with DCD may be reluctant to participate in PE or may act out in class.** In doing so, a teacher may perceive them as being lazy or uncooperative, and provide them with less support, when what they actually need is more.

What to do if you suspect a child may have DCD

As a PE teacher, you may be one of the first people to become aware of a child's motor difficulties in comparison to their peers. If you notice a child in your physical education class who persistently displays difficulty performing activities it is important that these issues are raised. Speak to the classroom teacher to see if the child is experiencing similar difficulties in the classroom (e.g., writing, cutting with scissors, zipping their school bag) and, as a team, reach out to the family and recommend that the child see a relevant specialist to evaluate their movement (e.g., an occupational therapist).



Of course, these conversations are difficult and sometimes parents are not always receptive, but some will be! Some schools may have occupational therapists or other links to allied health professionals linked to the school, so it is worth reaching out to these teams to see if they would be willing to conduct an evaluation.

Children who are identified with movement difficulties early have the best opportunity to develop their skills whilst they are still in the early acquisition phases.

Class strategies for PE

- Focus on activities that facilitate participation by all – an inclusive learning environment.
- Establish what the child can do (through the model of support) and provide them with the opportunity to develop their skills to the best of their ability.
- For complex activities – provide one-on-one support where possible (verbal, visual and tactile [hand over hand]).
- Breaking the movements down into core elements can also assist learning (i.e., legs, trunks, head and arms).
- Provide instructions explicitly, rather than expecting a child to know implicitly what they should do, but know that they will be unlikely to process too many instructions at any one time.
- Consider using analogies, where appropriate, to reduce the amount of instructions given.
- Modify equipment and rules to make activities achievable if required.
- Some children might need a buddy or friend to help them be involved.
- Small group activities or circuits can be effective modes of delivery. It allows more time for active participation, reduces wait times, and minimises social comparison.

- Whilst participation should always be encouraged, there is no point forcing the issue if the child refuses. Try to engage them in other ways (i.e., assistant coach, referee).
- Be supportive and provide positive feedback when they make that catch or show good sportsmanship.
- Avoid situations of repeated failure, children picking teams (nobody likes to be picked last), competition and emphasis on winning or being #1.

Another important area that PE teachers can provide support is making recommendation of appropriate activities for the child outside of school. Whilst the focus of sporting activity for children should be on participation, children with movement difficulties often become withdrawn from sporting activity at an early age.

Find out what services are available in your area and see if there are any sporting-related programs that may be suitable. Some states have exercise intervention programs run by accredited exercise physiologists which may be suitable.

Find out more at dcdaustralia.org.au

References

- [1] Cairney, J., Hay, J., Mandigo, J., Wade, T., Faught, B. E., & Flouris, A. (2007). Developmental coordination disorder and reported enjoyment of physical education in children. *European Physical Education Review*, 13(1), 81-98.
- [2] Rivilis, I., Hay, J., Cairney, J., Klentrou, P., Liu, J., & Faught, B. E. (2011). Physical activity and fitness in children with developmental coordination disorder: a systematic review. *Research in developmental disabilities*, 32(3), 894-910.